

# Public Utilities

*FORTNIGHTLY*



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**August 27, 1936**

**TIME AND TIDE WITH QUODDY**

*By Will Beale*

« »

**The TVA Potpourri**

*By C. Emery Troxel*

« »

**A Model State Commission for Utility  
Regulation. No. 2**

*By Laurence E. Baty*

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PUBLISHERS**



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Department T-121

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Associate Editors—ELLSWORTH NICHOLS, FRANCIS X. WELCH  
Contributing Editor—OWEN ELY

# Public Utilities Fortnightly



VOLUME XVIII

August 27, 1936

NUMBER 5

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**Q** This magazine is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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## Pages with the Editors

WASHINGTON correspondents and other observers of the emphatic manner in which the recent session of the 74th Congress turned thumbs down on the Passamaquoddy tidal power project have almost unanimously written off Quoddy as a dead bird. Arthur Krock, a Washington news-brooder for the *New York Times*, paid due tribute to the political perspicacity and tireless assaults of Republican Senator Arthur A. Vandenberg of Michigan. Roosevelt-hating Frank Kent of the *Baltimore Sun* duly deplored what he regards as a shameless waste of public relief funds while the somewhat school-teacherish but ever interesting David Lawrence, syndicated columnist and editor of *United States Weekly*, made his customary diligent research and came up with his inevitable "moral" that we should all learn from the sad, sad tale of Quoddy.

In other words, these three wise men and dozens of their lesser-known colleagues, not to mention the non-writing Washington observers, solemnly interred Quoddy as Project Blunder No. 1 or No. 2, depending upon the various comparisons with that equally ill-fated relief project, the Florida Ship Canal. But they reckoned without the tenacious mentality of Franklin D. Roosevelt. It has often been said of the President that he never gives up a proposition that he has personally adopted. He may change methods, plans, and, of course, nomenclature, but just as Soil Conservation arose from the yet warm ashes of the late

Agricultural Adjustment Administration, we may yet witness—election fates permitting—Quoddy arising Phoenix-like from the funeral pyre so assiduously arranged by Senator Vandenberg and his cohorts of economy.

We have the word of none other than the President himself who, on his recent vacation visit to Maine, said simply and with much obvious sincerity to the people of Eastport: "Quoddy will be completed. I believe in Quoddy and I believe you do, too!"

THAT seems plain enough. It is difficult to see at this point just what the President can do about it, but we can rest assured that he will try his best if given an encore in the White House. Meanwhile, what is all this fuss about the tidal power project? Is it true what they say about Quoddy? PUBLIC UTILITIES FORTNIGHTLY has already published an article dealing rather harshly with Quoddy on its economic merits. It is only fair, in accordance with our open-forum policy to publish an article that speaks up for a project that seems to have few enough friends, aside from the President himself.

WILL BEALE, who writes our Quoddy article (beginning page 223), is a member of the Quoddy public relations committee, formed last winter to break down the barrier of unfriendliness toward the Maine project. He is a Maine business man and also a professional writer. His articles have appeared in a wide range of fiction magazines. He admits that maybe it is his natural sympathy for the under dog that led him to champion Quoddy and states: "Have always been deeply interested in 'Quoddy,' because it holds the required elements of dauntless vision to eventually establish it among the historic world-winners; because it has been scoffed at and hammered just the proper amount to fulfil tradition, or a little bit more; because we all have an inner urge to nestle up to greatness and ten years from now I'll be glad to have been hooked on to Quoddy, if only on the fringe."



WILL BEALE

*He sticks up for an ideal—Quoddy.*  
(SEE PAGE 223)

TOPEKA, Kansas, which seems much in the news these days as the bailiwick of GOP presidential aspirant, Governor Landon, and his articulate campaign manager, John Hamilton, also happens to be the birthplace of LAURENCE E. BATY, the second instalment of whose article on a model public service commission is published in this issue (beginning page 241). We didn't get a chance to tell you in the last issue, but MR. BATY graduated as an electrical engineer from Kansas State Col-



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LAURENCE E. BATY

*He has an ideal of his own—  
a model commission.*

(SEE PAGE 241)

lege in 1929 and took a job as an assistant engineer with the Missouri Public Service Commission. Thus, it will be seen that Mr. BATY had first-hand opportunity for speculating on his model public service commission. In 1934, he left the commission to take a post with the Salt Lake Division of the Utilities Power & Light Co.

**I**N this issue (beginning page 231), we introduce a new contributor, Dr. C. EMERY TROXEL, B.S.C. (Iowa '29) M.B.A. (Northwestern '30) and Ph.D. (Iowa '35). Dr. TROXEL augments this formidable list of degrees with teaching experience at the University of Chattanooga, the University of North Dakota, and West Virginia University, where he is now assistant professor of economics. Dr. TROXEL in his research activities in political economics has paid special attention to public utilities and public ownership. In this issue, he tells us what he thinks about TVA.

WE'LL certainly be hearing a great deal more about the Tennessee valley during the campaign and after it, but for a little comic relief during hot weather there is the tale about the mountaineer who had been persuaded to buy a washing machine for his newly electrified premises. The next day, he angrily called the sales office and demanded to know what in tarnation they meant by sending him a blankety blank machine "that breaks up the derned dishes as fast as the old woman puts them in there."

**A**MONG the important decisions reprinted from *Public Utilities Reports* in the



C. EMERY TROXEL

*He finds difficulties in an ideal—TVA.*

(SEE PAGE 231)

back of this number, may be found the following:

A MUNICIPALITY may file a complaint against rates and present the issue of reparation in behalf of its citizens, but damage must be proven, according to a ruling in Alabama. (See page 225.)

THE Wisconsin commission has discussed the question of street lighting rates of a municipal plant, involving the apportionment of street lighting investment. (See page 237.)

INCREASES in street railway rates cannot be effected by merely filing a tariff without commission approval, according to a New York decision. (See page 243.)

MINIMUM charges for industrial gas are the subject of an opinion by the Pennsylvania commission. (See page 244.)

RATES of each utility must be determined by their particular facts, and, therefore, in the opinion of the North Carolina commission, a complaint cannot properly allege that other power companies have made substantial rate reductions as distinguished from a company complained of. (See page 248.)

THE California commission, in fixing rates for a telephone company, considered the investment of the company as a whole although making segregations for a particular city exchange. (See page 252.)

THE next number of this magazine will be out September 10th.

*The Editors*

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OFFICE DRIVES ME  
**CRAZY** . . . SOUNDS  
LIKE A BOILER FACTORY



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News throughout the states.

### REPRINTS FROM PUBLIC UTILITIES REPORTS

*Various regulatory rulings by courts and commissions reported in full text, pages 225-284, from 14 P.U.R.(N.S.)*



# New Heavy Duty a-c Circuit Breakers

ADJACENT SWITCH ELEMENTS  
CARRY CURRENT OF  
DIFFERENT PHASES

Arrangement of switch elements avoids large voltage drop caused by skin effect; reduces localized heating; raises safe carrying capacities; simplifies connection with interlaced bus bars.



Fig. 1

In new heavy duty a-c circuit breakers, developed and patented by I-T-E engineers, switch members carrying current of like phase are spaced far enough apart to minimize skin effect.

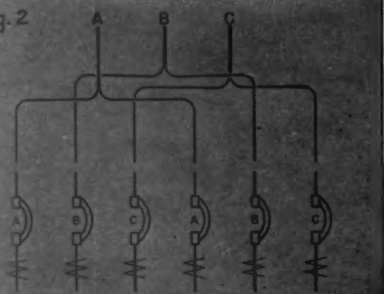
In the circuit breaker illustrated, the distance between switch members of like phase is that between bridges A and A; Fig. 2. Intervening space is safely utilized by switch members carrying phases B and C, since adjacent currents of different phase cause little trouble.

Unequal current distribution is avoided so that the temperature rise in contacts and bus bars is equalized. This makes possible a more economic use of copper. Inductive heating in nearby steel structure is greatly reduced.

The same advantages are to be gained when switch members of like phase are separated vertically.

The low reactance inherent in this type of construction is particularly advantageous in low voltage systems . . . for example in electric furnace installations.

Fig. 2



In addition to showing one plan for locating and connecting switch members, this diagram indicates that bus bars may be separated and interposed in a like manner. The advantages of separating bus bars in this way, for as much of the run as possible, are well established.

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# Remarkable Remarks

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*"There never was in the world two opinions alike."*

—MONTAIGNE

CARTER GLASS  
*United States Senator from  
Virginia.*

"We now have a system of government of privilege and discrimination."

LLOYD GEORGE  
*Wartime Premier of England.*

"Individual enterprise must remain the supreme active power in the production of wealth and well-being."

EDITORIAL STATEMENT  
*The Nation.*

"Eventually the FCC may find it necessary to adopt the Nazi practice of censorship by interference with the air waves."

C. W. KELLOGG  
*Chairman of the Board, Engineers  
Public Service Company.*

"In times of normal growth, for an electric utility the need for new capital is not an occasional requirement but a hardy perennial."

HAROLD L. ICKES  
*Secretary of Interior.*

"The many sided Tennessee valley experiment can be reproduced in varying degrees and on different scales in widely separated parts of the country."

RAYMOND MOLEY  
*Editor, Today.*

"Modern business, through efficient production, is bringing closer to the average man not only the things he needs in his daily life, but the things that make his life more pleasant."

WALTER LIPPMANN  
*Political analyst.*

"Not to believe that government must regulate all human affairs is currently regarded as stupidly reactionary by those who imagine themselves the pioneers of a new world."

FLOYD B. OLSON  
*Governor of Minnesota.*

"The Western railroads have added greatly to the wealth and welfare of this state (Minnesota), giving employment to many and making our resources available to commerce."

HARPER SIBLEY  
*President, Chamber of Commerce  
of the United States.*

"How far the power of government should be invoked to serve our national purposes and, at the same time, give full play to individual resourcefulness is not altogether a constitutional question."

CHARLES H. MEYER  
*Attorney.*

"The destruction of our present (security) markets and the substitution in their place of investment by negotiation would deprive industry of its present mobility in obtaining capital for further development."

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REMARKABLE REMARKS (*Continued*)

GEORGE R. FARNUM  
*Boston, Mass.*

"As yet the American people have not discovered any satisfactory substitute for the present form of constitutional government, or for the Supreme Court as one of its major factors."

WENDELL L. WILLKIE  
*President, The Commonwealth  
& Southern Corporation.*

"The average family using a package and one half of cigarettes per day pays in taxes on these cigarettes as much as it pays for all the electricity it uses for lighting, refrigeration, and for all other purposes."

JOHN W. DAVIS  
*In an address to the New York  
State Bar Association.*

"Political science is not a thing of machines or statistics but of human behavior and the lives of men. Every governmental policy must be tested primarily by its effect upon the character, virtues, and development of the human beings subject to it."

ARTHUR W. BALLANTINE  
*Former Undersecretary of  
the Treasury.*

"It is often suggested that stopping the deficits must be a harsh and inhuman operation. The necessary action, however, does not mean that the needs of those truly in distress will be denied; it does mean that relief payments shall be based solely and impartially upon need."

HENRY FORD

"A nation that knows how to work will never suffer for long, and especially such a nation will not be deceived for very long by promises of comforts and prosperity without work. On the other hand, those who have never worked can be deceived by such doctrine."

WINTHROP W. ALDRICH  
*Chairman, Chase  
National Bank.*

"It may prove to be a cruel and pitiful jest to compel by law the great body of our working people to save for their old age dollars which our existing public policies could so easily rob of most of their value long before the time came when the worker was to get them back."

DR. HAROLD W. DODDS  
*President of Princeton University.*

"What I am arguing for is a point of view, a social philosophy which endorses every measure which will free individuals from social and economic handicaps, but which tests every proposal by its probable effect upon individuals and not by some romantic conception of the nation or of society."

EXCERPT  
*From Associated Press Dispatch.*

"Informed sources in the Mexican capital reported the (Cardenas) government was planning to use the same strategy to break the electric strike as that employed to end the national railways strike in May—to declare the strike illegal and order workers to return to their jobs within twenty-four hours."

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2.24	2.04	6646	6612	34			JUN 5	JUL 6	2.24	2.04	GAS	2.24	
6.00	6.00						JUN 5	JUL 6	6.00	6.00	MERCHANDISE	6.00	
4.15	4.15						JUN 5	JUL 6	4.15	4.15	ELEC. ARREARS	4.15	
3.25	3.25						MAY 4	JUN 5	3.25	3.25	GAS ARREARS	3.25	
3.00	3.00						MAY 4	JUN 5	3.00	3.00	GAS ARREARS	3.00	
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- Cast Chrome Nickel Steel
- Cast Chrome Nickel Tungsten Steel
- Cast Chrome Tungsten Steel
- Cast Nickel Steel
- Forged Carbon Steel
- Forged Chrome Tungsten Steel
- Stainless Steel
- 18% Chrome, 8% Nickel Steel



# The CHAPMAN VALVE

## MANUFACTURING COMPANY

### INDIAN ORCHARD, MASSACHUSETTS

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# TITAN

## SNAP ACTION THEROMSTATS

To specify a Titan Snap Action Thermostat is to specify a device tested by wide field experience . . . proven by years of use under the most severe conditions with all types of gas from Canada to the Canal Zone . . . extraordinarily sensitive yet rugged, unfailing in operation, practically fool-proof and trouble-proof, virtually free from the necessity of servicing. Titans are already standard equipment on the majority of storage heaters approved by the American Gas Association. They are available for any size from the smallest to the largest. Write for details.

---

### THE TITAN VALVE & MANUFACTURING COMPANY

*Thermostats :: Safety Pilots :: Relief Valves*  
3205 PERKINS AVENUE, CLEVELAND, OHIO

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**WATER HEAT  
CONTROL**

# "PLUS" VISES

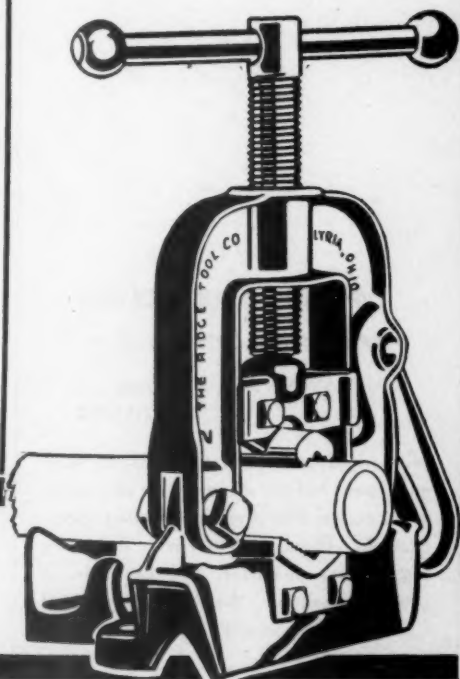
**RIGID** Pipe Vises Give You a Bonus of Extra Values

● Conventional in design, these **RIGID** Vises have unusual special features that make them unusually satisfactory to use. For instance, all types and sizes have pipe rests and pipe benders. "No-Mar" jaws are available in yoke vises of 2" and 2½" capacities. Post vises are equipped with holders for oil can or dope pot and vise stands have handy tool trays. All frames are made of special malleable metal and jaws of highest quality heat-treated tool steel.

**ASK YOUR JOBBER**

**RIGID**

REG. U. S. PAT. OFF.

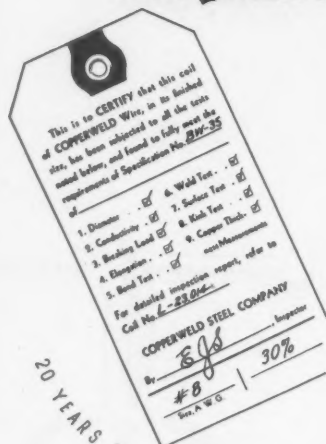


**RIGID**, the pipe wrench with the guaranteed unbreakable housing. Strength that meets United States Government and Navy specifications.

**THE RIDGE TOOL CO.**

**ELYRIA, OHIO**

## Your GUARANTEE of UNIFORM HIGH QUALITY



20 YEARS OF EXPERIENCE

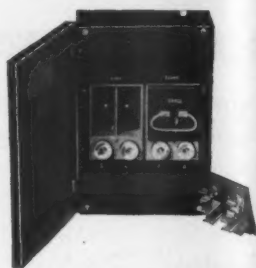
*This TAG of CERTIFICATION  
appears on every coil of  
"COPPERWELD" WIRE and  
STRAND*

Nine rigid tests, that the finished wire must pass before shipment or stranding, make certain that it meets exacting specifications. These, together with the many tests of raw materials and of those in process, maintain the high quality of Copperweld products.

All genuine Copperweld wire and strand bears such a tag of Certified Inspection. It is your guarantee that the product is time-tested, rigidly inspected Copperweld.

**COPPERWELD STEEL COMPANY**  
GLASSPORT . . . . PA.

## COMBINATION MAIN SERVICE SWITCH WITH RANGE SWITCH AND LIGHTING CIRCUITS



Plenty of wiring space and knockouts. Switch blades mounted on removable dead front holders for safety and convenience in replacing fuses. Standard finish baked on black enamel. Other indoor and outdoor weatherproof types are shown in new catalog. Ask for your copy today.

**WALKER ELECTRICAL COMPANY**  
ATLANTA GEORGIA

## ACCURACY

In the efficient operation of water or sewage treatment works, it is of utmost importance that a definite and ACCURATE knowledge of flow conditions be known.

SIMPLEX VENTURI TYPE METERS, because of their SENSITIVITY and ACCURATE RESPONSE to flow variations over a wide range, will meet your most exacting flow measuring requirements.

Let SIMPLEX ENGINEERS help YOU.

**SIMPLEX VALVE & METER CO.**  
6761 Upland St., Philadelphia, Pa.

SWITCH  
NDlockouts,  
movable  
and con-  
ward fin-  
indoor  
shown  
y today.PANY  
GEORGIAwater  
is of  
nite  
ofME-  
VI-  
NSE  
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low

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o.  
a.

(nt)



## Effective Low-Cost DUST CONTROL for buildings of all types —

In addition to the physical advantages obtained with controlled temperature and humidity, industrial plants now have a new and powerful incentive to keep the air **CLEAN AND DUST-FREE**. This is the fact that **SILICOSIS** is now a recognized industrial hazard and in many plants, an expensive one.

Keep **YOUR** buildings from this dust menace by providing **WASHED, CLEAN AIR** at the proper temperature and humidity. Buffalo Air Washers have been used for this service for more than thirty-five years. They have many advantages of design and construction. They are "fool-proof" in operation. Operating costs are low.

As publishers of "Fan Engineering," first authentic book on air handling and conditioning, Buffalo engineers have available an enormous amount of data on air conditioning and its problems. Make use of this accumulated engineering knowledge by calling in a Buffalo engineer when you want **AIR** cleaned—tempered—or moved.

**BUFFALO FORGE COMPANY**

**444 Broadway**

**Buffalo, N. Y.**

**"Buffalo"**

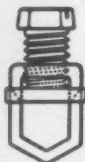
**AIR WASHERS**  
**for Pure, Clean Air**

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## SIMPLE, ISN'T IT?



**NOTICE:** The triangular wedge formed by the tang and V-bottom collar, which forces the wire into a solid mesh—



- NO set-screw contact...
- NO flattening or separating of wires...
- NO limitation to one size wire...
- NO shearing effect whatsoever...
- NO special tools required to make connection...

NO need for you to search any longer for the **PERFECT** solderless connector—WE HAVE IT!

**FREE!** A large display board, containing mounted samples of ILSCO lugs. Sent upon request. Address Dept. UF.

**ILSCO COPPER TUBE & PRODUCTS, INC.**  
5629 Madison Rd. Cincinnati, Ohio

## BETTER PURIFICATION

with

## CONNELLY PURIFYING MATERIALS

Iron Oxide Ore — Commercially Dry — High in Ferric Oxide — Hydrated and Properly Alkalinized — Ready for Mixing — Bulk or Bagged.

Iron Sponge — Connelly Trade Name — Ready Mixed; Prepared from Connelly Oxide Ore and best available fillers; Connelly Special Fillers increase life of Sponge.

Connelly Materials are prepared for Maximum Activity and Capacity; Investigate before you Invest; Buy on experience and specifications.

### Write for Bulletins

Caloroptic BTU Indicator; H<sub>2</sub>S Testers; Regulators for District, Service, and Appliance; Back Pressure Valves; U-Gauges

### CONNELLY IRON SPONGE & GOVERNOR COMPANY

Chicago, Illinois - 3154 South California Ave.  
Elizabeth, N. J. - 200 South Second Street  
N. E. Agt.; Theo. H. Piser - Wellesley Hills, Mass.



## STOWE STOKERS *are doing things*

● Stowe Stokers with their compensating feed—positive rear end air seals—unrestricted fuel selection—and much reduced ash pit losses—are demonstrating their superiority—give highest overall efficiencies on any coal. Customers are placing repeat orders. Investigate the advantages that only Stowe Stokers can give you. Full details on request.

**THE JOHNSTON & JENNINGS CO.**  
977 Addison Road Cleveland, Ohio  
Engineering and Sales Services in the Principal Cities

Stowe Stokers give you greatest possible control over fluctuating coal prices. • Catalog No. 10 is complete with 14 diagrams—20 illustrations. Send for one.



# STOWE STOKERS

## ★ *Compensating Feed*

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# THEY NEVER SAW A TYPEWRITER PLANT



... but they know that  
**ROYAL**  
means Better Letters  
at Lower Cost

The test of a typewriter is the typewriter itself and the typing it does!

You'll realize it—the instant you try a New Easy-Writing Royal and . . . Compare the Work!

Letter-perfect! Even to the final carbon copy! Sentences, paragraphs, pages—free from the erasures and corrections that handicap typists, that retard the quick completion of their assignments!

*Time gained, money saved!*

Royals are right—year after year—*always!* And executives and operators know it! That is why Royal sales are greater now than ever before!

Invite a demonstration!  
Know why Royal is World's No. 1 Typewriter!

**ROYAL TYPEWRITER  
COMPANY, INC.**

2 Park Ave., New York City

Branches and Agencies throughout  
the World

\*Trademark for key-tension device.



Copyright, 1936, Royal Typewriter Company, Inc.



**FIRSTS that make ROYAL  
FIRST!**

**SPEED**—Greater volume! **EASE**—With Touch Control,\* Shift Freedom, and many other exclusive features! **CAPACITY!** Greater speed, greater output! **ECONOMY**—Lower costs throughout! And **DURABILITY**—Longer life!

**WORLD'S**

## New Easy-Writing ROYAL

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# NO LAZY WATER



## COLLECTS

*In A*

## THERMOLIER



*"Internal Cooling Leg" keeps all of the heater working, ALL of the time . . .*

The excellent performance and steady heat delivering ability of a Thermolier is due largely to the exclusive built-in system—the "internal cooling leg"—for removing *Lazy Water*—condensation, *continuously*—not intermittently.

It keeps all of the heater working, *all* of the time.

When selecting Unit Heaters ask what provision is made for preventing intermittent accumulation of *Lazy Water* in the Unit.

Grinnell Thermoliers have 14 such points of superiority—definite, engineered features that save money and provide more heat per dollar.

Get the facts! Send for a copy of the new Thermolier Data Book.



**GRINNELL**



**COMPANY**

EXECUTIVE OFFICES

PROVIDENCE, R. I.

BRANCH OFFICES IN PRINCIPAL CITIES

# GRINNELL THERMOLIER

THE UNIT HEATER WITH 14 POINTS OF SUPERIORITY

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# NEVER EQUALED FOR SERVICEABILITY


*For 10, 20 and Even 30  
Thousand Hours Gargoyle  
D.T.E. Oils retain their ability  
to Lubricate Efficiently*



**SOCONY-VACUUM OIL COMPANY, INC.**

STANDARD OIL OF NEW YORK DIVISION - WHITE STAR DIVISION - LUBRITE  
DIVISION - WHITE EAGLE DIVISION - WADHAMS OIL COMPANY - MAGNOLIA  
PETROLEUM COMPANY - GENERAL PETROLEUM CORPORATION OF CALIFORNIA

**KLEIN**



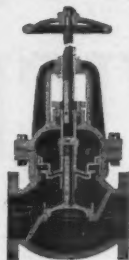
**BELTS**

Where life depends on a strap or belt of leather no compromise can be made with quality. Klein's leather is first quality, selected for its strength and durability, and checked for chemical analysis and tensile strength. All hardware is drop forged from bar steel, individually tested to 1500 lbs. Stitching is done with hot waxed genuine Irish linen thread, lock stitched. Riveting by hand with solid copper rivets reinforces all necessary parts. Standard of quality with linemen and safety engineers everywhere.

**Mathias KLEIN & Sons**  
Established 1851 Chicago, Ill. USA

## PLANT SAFETY

### WITH GOLDEN-ANDERSON AUTOMATIC VALVES



Safety Stop Non-Return valves protect lives and property, automatically, against live steam flows due to boiler ruptures or steam line breaks.



Perfect water level control assured by the Altitude Control Valve . . . the most efficient and dependable automatic valve for tanks, standpipes and reservoirs.

Ask for your copy of catalog for our complete line of automatic control valves

**Golden-Anderson Valve Specialty Co.**  
1380 Fulton Bldg. Pittsburgh, Pa.

# Exide

## BATTERIES

—still the first choice of leading utilities

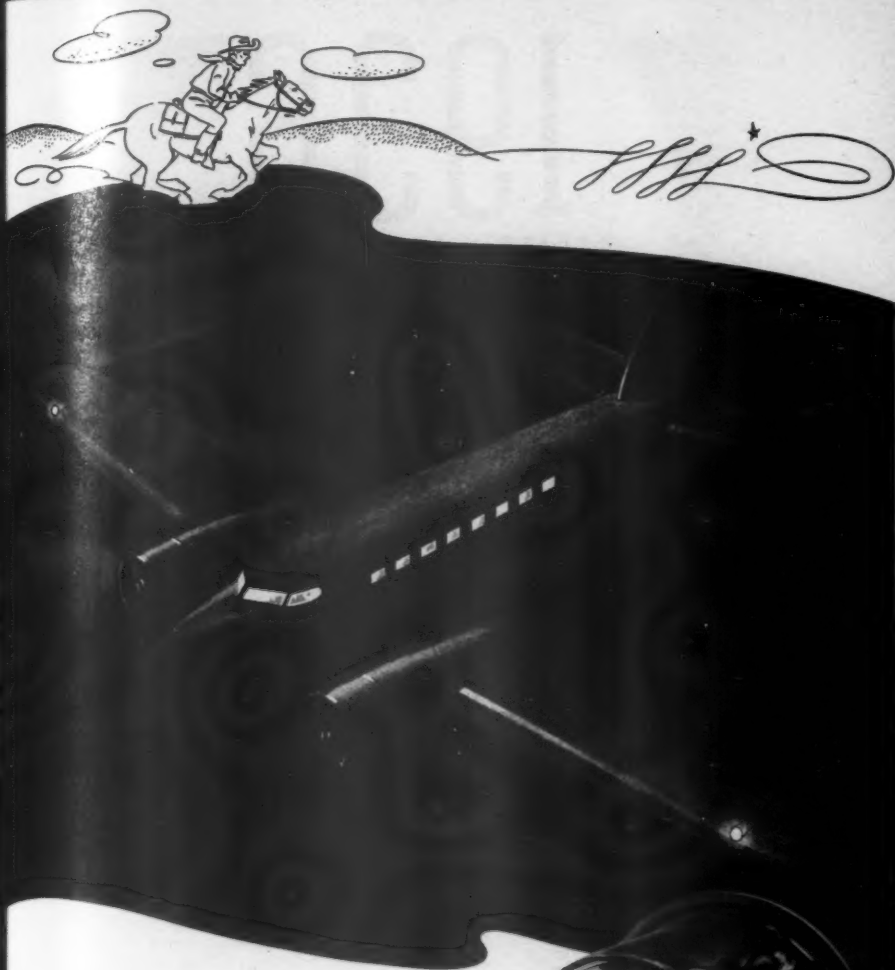
Nearly half a century ago, when the storage battery was still regarded with skepticism, even by many engineers, The Electric Storage Battery Company had its inception.

Even in those early days of an infant industry, there was manifest, among utility and public service companies, that confidence in Exide Batteries which is so universally apparent among them today.

No matter what the purpose for which you require storage battery power, you can specify Exides secure in the knowledge that they are built for long, trouble-free service at minimum cost.

### THE ELECTRIC STORAGE BATTERY COMPANY

*The World's Largest Manufacturers of Storage Batteries for Every Purpose*  
**PHILADELPHIA**



THE galloping hoofbeats of the Pony Express have vanished into history. Today's requirements demand the swift, sure service of huge airliners for the rapid delivery of mail. • • Likewise, 1936 metering demands are met by Detachable Metering. • • The Westinghouse CS Detachable Meter in particular assures the most successful and economical answer to the six modern metering requirements. Call your nearest Westinghouse Office for full details.

J 40013

# Westinghouse



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1936

CAPITAL AND SURPLUS

\$5,000,000

GROWTH

THAT

DEMANDS

RECOGNITION

The first Hygrade Lamps were manufactured in 1901. The capitalization of the company was \$3500. Hygrade Lamps entered the market in competition with bulbs produced by the largest manufacturers of electrical equipment in the world. Yet, by the sheer power of their fine quality, they have steadily forced growing recognition of their merits until today's demand for them has reached a volume that is the third largest in the country—and the company's capital and surplus is over five million dollars.

A big company—a big name. A concern whose record and product must command respect—and consideration in your scheme. A story of the facts behind such tremendous growth must be worth listening to. It's a story that offers economies as well as quality, a story that is interesting more and more important utilities—particularly on street lighting. A story you ought to know. Ask us to give it to you.

HYGRADE SYLVANIA CORPORATION, SALEM, MASSACHUSETTS

HYGRADE LAMPS

Manufacturers of incandescent lamps for over 30 years.  
Makers of Sylvania Set-tested Radio Tubes

1901

CAPITALIZATION

\$3500

SPECIALISTS IN  
STREET LAMPS

© 1936, Hygrade Sylvania Corp.

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Although replete with features which insure faultless performance, the new *Niagara Two-Twenty Gas Air-Conditioning Unit* is certain to be renowned for the ability to quicken the urge to possess it. A noted designer has given to this appliance the dignity and grace of line that wins admirers of fine things for the home.

*Walter L. Seelbach*

W. L. Seelbach, *Secretary-Treasurer*

**THE FOREST CITY FOUNDRIES COMPANY  
CLEVELAND, OHIO**

▶ **Niagara Gas Fired Air-Conditioning Units will be displayed at the Association of Gas Appliances and Equipment Manufacturers Exposition at Atlantic City in October, 1936.** ◀

# NIAGARA

## Two - Twenty

### GAS AIR-CONDITIONING SYSTEMS

**Pressure Type  
1-Gallon  
Fire  
Extinguisher**



**easy operation  
rapid discharge  
long range  
large capacity**

Here is the big brother that comes to the rescue of the little fellow when he's trying to handle something beyond his capacity.

Wherever there are big buses, trucks, gasoline pumps, electric locomotives, transformers, panel boards, and large rotary units, this one-gallon pressure-operated Pyrene extinguisher offers greater protection.

Speed and force of application are important in fire fighting. Give the valve of this extinguisher a quarter turn and a strong stream discharges one gallon of vaporizing liquid in 55 seconds.

Make sure that you have enough Pyrene one-gallon extinguishers to back up your smaller equipment. Write for folder No. 22.

**Pyrene Manufacturing Company**  
NEWARK NEW JERSEY  
ATLANTA KANSAS CITY  
  
CHICAGO SAN FRANCISCO

*You can do Better with Frigidaire*

**BECAUSE**

# FRIGIDAIRE IS EASIER TO SELL

● As proof, we offer the fact that Frigidaire sales the first six months of 1936 were greater than the entire year of 1935—or any previous year!

As further proof, Frigidaire leads the industry in sales and this leadership is ever increasing. Frigidaire has sold one and one-half million more refrigerators than any other make.

This large measure of public acceptance is not the result of chance. It is because of superior product...because millions of dollars have been spent to establish the Frigidaire name...because Frigidaire's advertising is salesmanship-in-print.

But these are not the only reasons why

Public Utilities find Frigidaire easier to sell. Frigidaire plans and executes three to four national campaigns yearly, geared to the season for which they are intended, and definitely developed with Public Utility needs in mind. Each campaign includes plans and materials for effective local merchandising, plus basic selling plans for specialty selling activity.

In addition, Frigidaire builds individual selling plans and promotions for utilities, "tailored" to meet definite problems, and designed to increase volume and build load... For these reasons, Frigidaire is easier to sell. You *can* do better with Frigidaire.

FRIGIDAIRE CORPORATION • DAYTON, OHIO



# Better Lighting *makes Better Store Fronts*



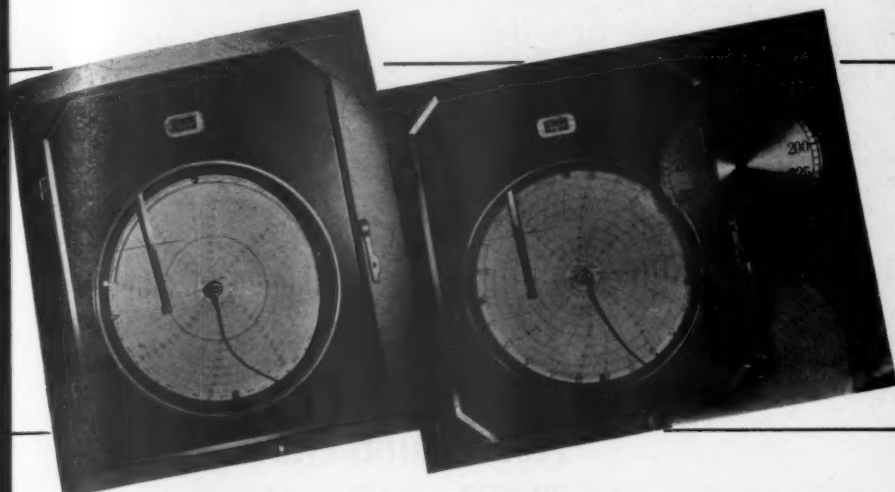
**T**HAT's why the Pittsburgh Plate Glass Company recommends to every purchaser of a Pittco Store Front the installation of adequate lighting facilities at the time the store front is built. We believe that close coöperation between the Pittsburgh Plate Glass Company and the Public Utilities in this respect, results not only in better business for both, but in more efficient store fronts for the American merchant.

If you are not already familiar with the means used by our store front department to assist in swelling your load through the exchange of prospects, the maintaining of a store front design department, and the showing of films on the value of modern store fronts and proper lighting, we suggest that you contact the manager of our nearest branch warehouse, or write to us direct at Pittsburgh.

CARRARA STRUCTURAL GLASS	<b>PITTCO</b> STORE FRONTS <i>glass...metal...paint</i> PRODUCTS OF <b>Paint { PITTSBURGH } Glass</b> PLATE GLASS COMPANY	PITTSBURGH PAINT PRODUCTS
PITTCO STORE FRONT METAL		POLISHED PLATE GLASS
PITTSBURGH MIRRORS		TAPESTRY GLASS

# LET POWER

write its autobiography



**TAYLOR RECORDING THERMOMETER**—In appearance, design and construction the highest type of modern recorder available today. Three types—Mercury, Gas, and Vapor-Actuated. Mercury type uses Taylor Accurate Tubing, designed to compensate for temperature changes through which tubing passes and to assure correct bulb temperature readings. Dust-proof and moisture-proof cases for face, or flush-mounting. Many styles of standard bulb assemblies are available to accommodate all types of apparatus.

**TAYLOR RECORDING PRESSURE GAUGES**—As fine and accurate an instrument as its brother Recorder of temperature. With latest refinements and improvements in design and construction. A pressure gauge of the highest type—long-lasting, efficient and economical in operation. In a rust-proof die-cast case which protects the inner mechanism against moisture and dust. For face, or flush-mounting. Shown dimly behind the recorder is the Taylor Dial Gauge, outstanding among indicating instruments. Easy to read...durable...accurate.

*Study its accurate record as written by the pens of Taylor Recording Thermometers and Pressure Gauges*

WHO ever thought of power writing its life history? But it does—in terms of temperature and pressure, with the pens of recording thermometers and gauges. The chart registers are vital records for every power plant. But they must be accurate records—reliable records—truth and nothing but the truth. Through the medium of Taylor Recording Thermometers and Pressure Gauges, power plants get precise and accurate records today. These instruments are designed from beginning to end to meet the most exacting requirements in connection with the production of power.

They are built to be accurate—and to give exceptionally long and economical service. (Their charts are printed on specially developed paper to eliminate reaction to atmospheric changes and to provide the ideal writing surface.)

Shown above are three types of modern Taylor Recorders designed for power plant use. A Taylor Recording Thermometer, a Recording Pressure Gauge, and a combined Recording Thermometer and Pressure Gauge, a necessity for superheated steam lines. For more complete information regarding these instruments, write for Catalog 68J

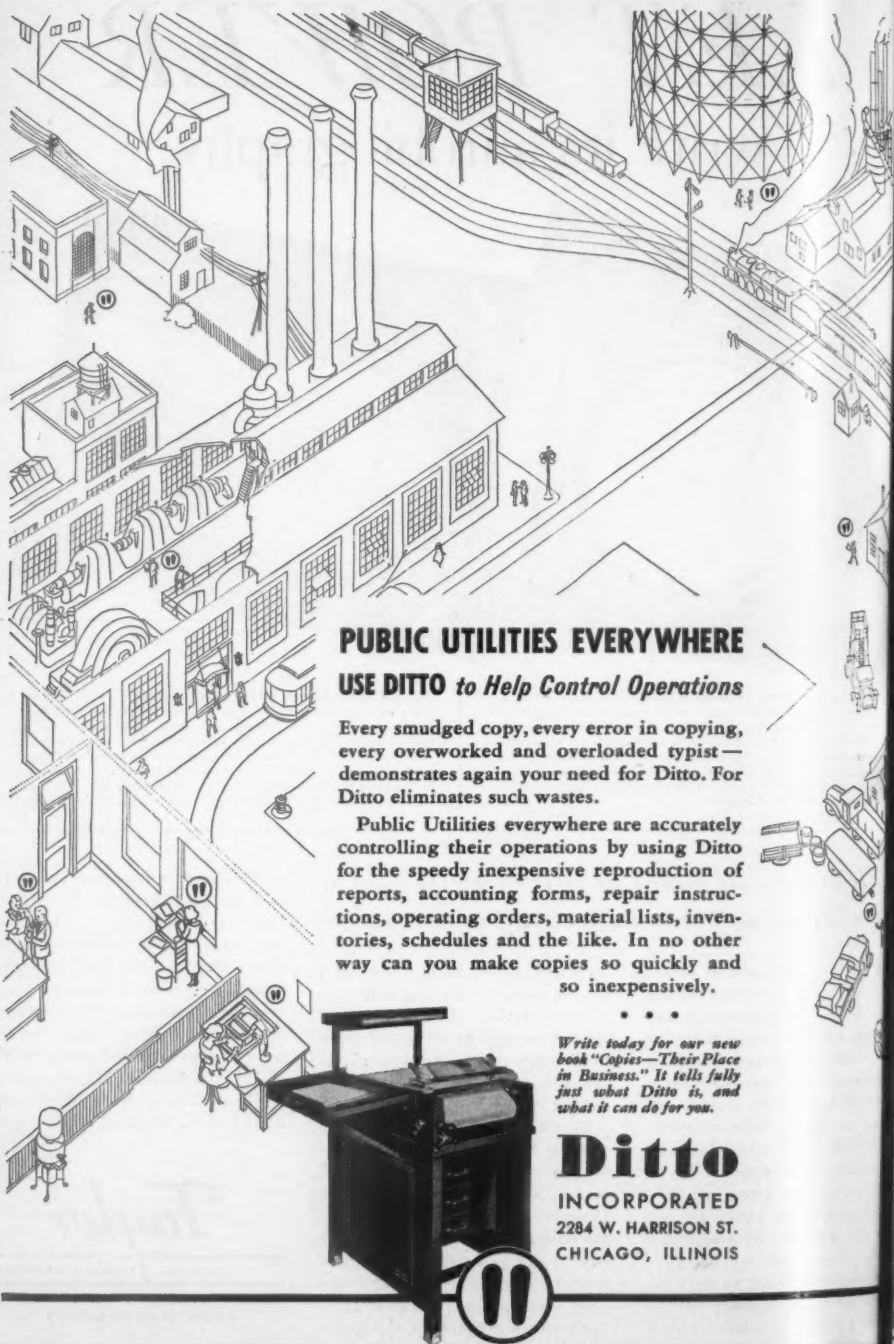
on Temperature Recorders and Catalog 68JF on Pressure Recorders. For more direct data on these and any other Taylor Instrument for Power Plants, ask a Taylor Representative to cover the ground with you. For Catalogs or a Taylor Representative, address Taylor Instrument Companies, Rochester, N. Y. or Toronto, Canada. Manufacturers in Great Britain—Short & Mason, Ltd., London, England.

## Taylor

Indicating Recording Controlling

TEMPERATURE, PRESSURE and FLOW INSTRUMENTS

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**PUBLIC UTILITIES EVERYWHERE**  
**USE DITTO to Help Control Operations**


Every smudged copy, every error in copying, every overworked and overloaded typist—demonstrates again your need for Ditto. For Ditto eliminates such wastes.

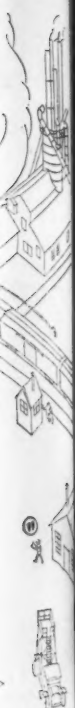
Public Utilities everywhere are accurately controlling their operations by using Ditto for the speedy inexpensive reproduction of reports, accounting forms, repair instructions, operating orders, material lists, inventories, schedules and the like. In no other way can you make copies so quickly and so inexpensively.

...

Write today for our new book "Copies—Their Place in Business." It tells fully just what Ditto is, and what it can do for you.

**Ditto**  
 INCORPORATED  
 2284 W. HARRISON ST.  
 CHICAGO, ILLINOIS





# ... FLAWLESS GLASS with BRASS BUSHING—the IDEAL insulator

When you "line up" with  
HEMINGRAY you line up  
these Advantages:

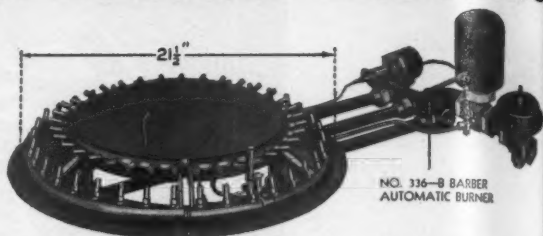
1. Brass bushed smooth threads for insulator pin.
2. Greater mechanical strength.
3. Sustained high dielectric strength.
4. Unaffected by sudden temperature changes.
5. Withstand maximum insulator pin expansion.
6. Never age or deteriorate.
7. Controlled uniformity of product.
8. All surfaces impervious to moisture.
9. Tougher— withstand rough handling.
10. Clear and flawless for easy inspection.

● This rugged new Hemingray Glass Insulator stands up better in all adverse weather conditions. It's brass bushed, providing perfect threads for uniform contact with pin—permitting quick, full-length insertion—and safeguarding against pin expansion. Its many all-around advantages clearly point to the brass bushed Hemingray as the ideal insulator for low-cost distribution service. All styles in clear and brown color. Ratings up to 15,000 volts. Write for descriptive bulletin . . . Owens-Illinois Glass Company, Hemingray Division, Muncie, Ind.

**HEMINGRAY**  
  
**INSULATORS**

# The Record of BARBER BURNERS Proves Their Superiority in Operation

FOR 18 years the name BARBER has established standards by which most Conversion Burners are judged. Barber Burners *stay sold*. They cut down complaints and removals, reduce servicing to the absolute minimum. Every Barber Conversion Burner is *specifically adapted* to the Heating System for which it is intended. Barber also makes specially designed Burners for numerous types of Gas-burning Appliances.



- "Tailor-made" to suit and fit the grate dimensions of round or oblong furnaces or boilers.
- Insures a "scrubbing" flame action on side walls of firebox, to the proper level, with 1900° Fahrenheit flame temperature. No fire brick or refractory elements needed.
- Furnished with Klixon or Baltimore Safety Pilot Control—positive and accurate. Listed in the A. G. A. Directory of Approved Appliances.

We supply Sales Literature, Specification Data Sheets and Practical Sales Assistance. Write for Latest Illustrated Catalog No. 37 and Revised Price List.

**THE BARBER GAS BURNER COMPANY**  
3704 Superior Avenue, Cleveland, Ohio  
**THE BARBER GAS BURNER CO. of MICHIGAN**  
4475 Cass Avenue, Detroit, Michigan

**BARBER *Automatic* JET GAS BURNERS**  
For Warm Air Furnaces, Steam and Hot Water Boilers and Other Appliances

## Style Bar-S All Weather Binder FOR METER READING



Write us for circular and details. Send sample of your sheet for prices on any quantity of binders.

**GRAND RAPIDS LOOSE LEAF BINDER COMPANY**  
10-16 Logan Street, S. W.      **GRAND RAPIDS, MICH.**

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## *It's NO LONGER a Problem!*

Preventing people from "taking-over" your entire building when certain sections are left open. The newly designed Kinnear Rolling Grille provides an attractive but impassable barrier. With all the convenience of a window-shade! Easily rolls upward and coils out of sight in a small space above the lintel. Spring counterbalanced. When closed it is locked in steel jamb guides so as to withstand tremendous pressures. And with all the protection it affords there are the additional advantages of the admittance of air, light and vision. Just note the illustrations and you will quickly think of many places this new type of guard could be profitably employed in your buildings.

## Protection Against Intrusion

Individually tailored for the job Kinnear Rolling Grilles can be built for any kind of an opening . . . entrance doors, windows, skylights, corridors, gates, stockroom cages and service counters. It can also be built in any size and various metals, operated either manually or electrically. And when you specify a Kinnear Rolling Grille you have the assurance of a nation-wide service organization who for more than 40 years have specialized in the design of Upward-Acting Doors and Grilles.



**IMPASSABLE  
BARRIER**  
plus  
**AIR  
LIGHT  
VISION**

Send for Kinnear's Complete Catalog. It describes Kinnear's various types of space-saving, efficient Doors and Grilles . . . all of which have numerous applications in public utility buildings.

**The KINNEAR MFG. CO.**

**2060-80 Fields Avenue**

**Columbus, Ohio**

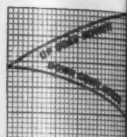
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# More Money-Saving Power in CHEVROLET TRUCKS

FOR ECONOMICAL



TRANSPORTATION



The new 1936 Chevrolet trucks are the most powerful trucks Chevrolet ever built. They are the most economical trucks for all-round duty, ever offered. Let a demonstration prove how these new Chevrolet trucks can save money for you—add to the profits of your business. There's a body type for practically every delivery and haulage need on half-ton and 1½-ton chassis . . . and you'll be surprised at the low prices of these new trucks.

CHEVROLET MOTOR CO., DETROIT, MICH.

## Vital New Features Cut Haulage Costs to New Low Levels

**NEW PERFECTED HYDRAULIC BRAKES** always equalized for quick unswerving, "straight line" stops

**NEW HIGH-COMPRESSION VALVE IN-HEAD ENGINE** with increased horse power, increased torque, greater economy in gas and oil

**NEW FULL-TRIMMED DE LUXE CAB** with clear-vision instrument panel for safe control

**FULL-FLOATING REAR AXLE** with barrel type wheel bearings on 1½-ton models

**POWER • ECONOMY • DEPENDABILITY • LONG LIFE**

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## “SUPER-DREDNAUT” THE COOL GOGGLE FOR “HOT WEATHER”

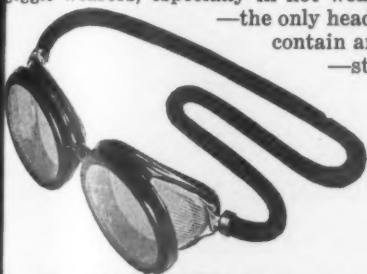
Workmen wear Super-Drednaut Goggles with a smile because they are the coolest goggle for hot weather. Ventilation holes all around the cup, extra wide screen area, light in weight and Non-Rubber headbands are reasons why Super-Drednauts are the ideal summer goggles and why workmen prefer them.

They swear by them too, because of the ADDED protection which Super-Drednaut deep curved lenses provide.

And remember, the one feature that undoubtedly furnishes the greatest comfort of all to goggle wearers, especially in hot weather is the Super-Drednaut Non-Rubber Headband

—the only headband of its kind on the market today that—does not contain any rubber—maintains a uniform tension indefinitely

—stays adjusted for keeps—can never be injured by over-extension—and, is not affected by hot weather, moisture, perspiration, oil or grease. It is the one headband that eliminates completely all the annoyances so prevalent in the old style elastic headbands.



Super-Drednaut 50-S Goggles

Send TODAY for a Super-Drednaut Goggle with the Non-Rubber Headband and inspect its outstanding advantages for “Hot Weather” use.

## THE SAFETY EQUIPMENT SERVICE COMPANY

Buell W. Nutt, President

:::

:::

1228 St. Clair Avenue, Cleveland, Ohio

*Manufacturers of a Complete Line of Accident-Prevention Equipment*

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# FLASHLIGHTS *for* INDUSTRY

**"EVEREADY"**  
**Industrial Flashlights**

**No. 3251**  
**No. 3351**



**No. 3351**  
**Three-Cell Type**

**No. 3251**  
**Two-Cell Type**

**NATIONAL CARBON COMPANY, INC.**

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*Unit of Union Carbide **UCC** and Carbon Corporation*

**"Eveready" Industrial Flashlights No. 3251 and No. 3351 have been specially designed to meet the needs of industry for flashlights which will give long and satisfactory service under unusually severe operating conditions.**

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For every situation that arises in the modern office, Dennison has a time or temper saver. Here is a list of some of them. Probably you are already using many, but perhaps there are some you have never tried.

*Shipping Tags*

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*Clasp Envelopes*

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*Address Labels*

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*Notarial Seals*

*Sealing Labels*

*Index Tabs*

*Gummed Reinforcements*

*Coin Wrappers and Bill Straps*

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Invaluable aids in every well-ordered office . . . they help save precious time, smooth ruffled tempers, promote speedy and efficient work. Use more of them. We'll gladly send you a compact catalogue . . . just write us.

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FRAMINGHAM

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During the last few years  
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# SWING<sup>-</sup>to RILEY STEAM GENERATING UNITS

## A Few of the Companies who have recently installed Riley Boilers

Lynn Gas & Electric Co. . . 205,000 lbs./hr.—430 lbs.—810° F.

Stone & Webster Engineering Corp., Engineers

W. Va. Pulp & Paper Co., Covington . . 375,000 lbs./hr.—600 lbs.—750° F.

Titanium Pigment Co. . . 125,000 lbs./hr.—448 lbs.—637° F.

Ford, Bacon & Davis, Engineers

Large Eastern Oil Refinery . . . 300,000 lbs./hr.—646 lbs.—740° F.

Standard Oil of California . . . 125,000 lbs./hr.—850 lbs.—760° F.

Stone & Webster Engineering Corp., Engineers

Pennsylvania Sugar Refining Co. . . 350,000 lbs./hr.—400 lbs.—505° F.

Carbide & Carbon Chemicals Corp. . . 80,000 lbs./hr.—600 lbs.—650° F.

W. Va. Pulp & Paper Co., Luke . . . 375,000 lbs./hr.—631 lbs.—700° F.

Savannah Sugar Refining Co. . . 100,000 lbs./hr.—325 lbs.—620° F.

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Prof. C. F. Hirschfeld, Consulting Engineer

Forstmann Woolen Co. . . 80,000 lbs./hr.—450 lbs.—612° F.

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The swing of plant after plant to Riley Steam Generating Units during the past few years  
has undeniably established Riley as one of the leaders of the boiler industry.

Be sure to consult Riley when steam generating or fuel burning equipment is being considered.

## RILEY STOKER CORPORATION WORCESTER, MASS.

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### COMPLETE STEAM GENERATING UNITS

BOILERS - SUPERHEATERS - AIR HEATERS - ECONOMIZERS - WATER-COOLED FURNACES  
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has been continuously demonstrating the  
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permanent insulation known

THE KERITE INSULATED WIRE & CABLE COMPANY INC.  
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## *The Basic Principles of* **MODERN GROUP DRIVE**

### 6

RESEARCH has shown that not over three-quarters of the rotary power produced at any given source is used in production in the manufacturing plant. In a large number of plants, another quarter is unnecessarily wasted.

All manufacturing power originates in the form of a rotating shaft. Practically all manufacturing loads are carried by some form of power application to rotary shafts. Between these two shafts lies Loss; large enough and costly under ideal conditions, but amazingly wasteful in a majority of plants.

Large savings may be effected by careful modernization of existing plants, and correspondingly large losses prevented by the

proper planning of new construction. The correct solution of any problem requires analysis of the economic factors in that particular case, and the planned application of power transmission equipment suitable thereto.

This association is pioneering such work among industrial users of power who may be among your own customers. The work supplements and amplifies the educational work you are carrying on now among those customers, for your own benefit.

We invite you, therefore, to join forces with us in our educational campaign, to the end that both of us may reap desired benefits the sooner. May we discuss this with you in detail?

---

#### **\*POWER TRANSMISSION COUNCIL**

**1 Atlantic Street, Stamford, Conn.**

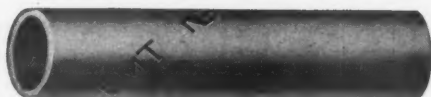
\*A research association of producers and distributors of power, power units and mechanical equipment for the transmission of power.

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**A POWER DOLLAR SAVED IS A PROFIT DOLLAR EARNED**

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Sherarduct Junior is E.M.T. light wall rigid tubing Sherardized and Solutionized—a rust-proofed, acid-proofed product tested as is Sherarduct Conduit, with zinc impregnated surface and the zinc surface impregnated with a solution that is not an insulation, therefore, offers no resistance to grounding.

The interior where the wires are held—the actual raceway itself—has a glass-like surface, an exclusive feature used heretofore only on Sherarduct Conduit.

Sherarduct Junior has a greater resistance to corrosion, longer life due to the alloy, possible only in the Sherardizing process of zinc treatment.

Sherarduct Junior bends as readily as thin metal permits, works into the job with less effort, blends into the picture because of neutral color and takes any finish of paint or color more readily because of the "Sera-solution" finish.

**National Electric**  
PRODUCTS CORPORATION  
Pittsburgh, Pa.







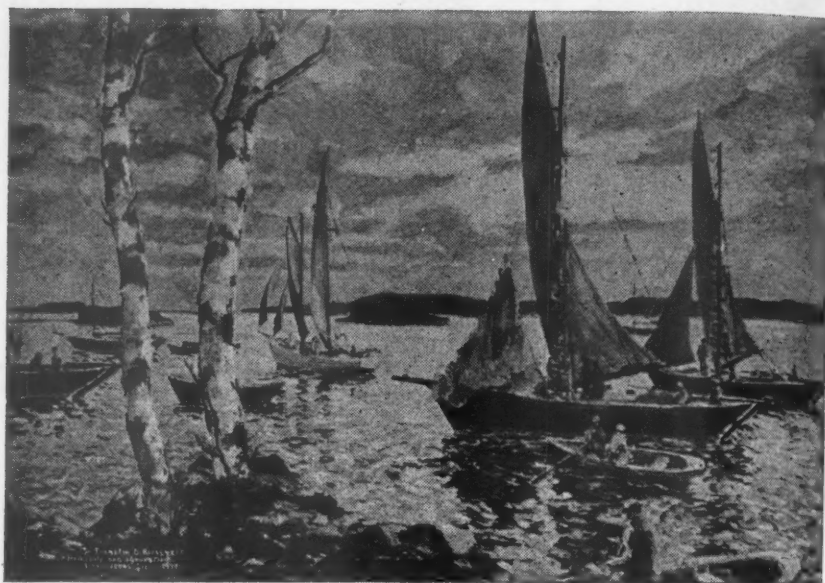
# Utilities Almanack

## AUGUST

27	Th	¶ Pacific Coast Gas Association ends 43rd annual convention, San Francisco, Cal., 1936.
28	F	¶ American Bar Association concludes 59th annual meeting, Boston, Mass., 1936.
29	Sa	¶ The Illinois Telephone Association will hold annual convention, Peoria, Ill., September 17, 18, 1936.
30	S	¶ American Transit Association and affiliates will hold 55th annual convention, White Sulphur Springs, W. Va., September 21-24, 1936.
31	M	¶ Illuminating Engineering Society starts convention, Buffalo, N. Y., 1936. ¶ National Association of Power Engineers, Inc., begins meeting, Chicago, Ill., 1936.

## SEPTEMBER

1	Tu	¶ Canadian Good Roads Association starts annual meeting, Charlottetown, P. E. I., 1936. 
2	W	¶ Association of Iron and Steel Electrical Engineers will convene, Detroit, Mich., September 22-23, 1936.
3	Th	¶ Rocky Mountain Electrical Association will hold annual convention, Santa Fe, N. M., September 21-23, 1936.
4	F	¶ United States Independent Telephone Association will hold convention, Chicago, Ill., October 13-16, 1936.
5	Sa	¶ National Bus Traffic Association will hold annual convention, Detroit, Mich., October 13, 14, 1936.
6	S	¶ American Gas Association will hold 18th annual convention, Atlantic City, N. J., October 26-30, 1936.
7	M	¶ Third World Power Conference and Second Congress on Large Dams begin session, Washington, D. C., 1936. 
8	Tu	¶ International Association of Electrical Inspectors, Eastern Section, begins convention, New York, N. Y., 1936.
9	W	¶ National Electrical and Radio Exposition begins, New York, N. Y., 1936.



## Passamaquoddy Bay

REPRODUCTION OF OIL PAINTING BY JONAS LIE, RECENTLY ON EXHIBITION AT THE CORCORAN GALLERY OF ART, WASHINGTON, D. C., AS PART OF THE ROOSEVELT COLLECTION.

# Public Utilities

FORTNIGHTLY

VOL. XVIII; No. 5



AUGUST 27, 1936

## Time and Tide with Quoddy

*Its greatest implication, in the opinion of the author, lies in its undoubted power to salvage its entire section, to rehabilitate permanently a region well worth saving.*

By WILL BEALE

IN writing this article friendly to Quoddy, the writer is only too conscious that he is sticking out his head. Motive? Pure underdog. In the last year or more Quoddy has been hooked up to every worth-while ignominy from vote corruption and the robbery of widows and orphans to philandering with grandfather clocks. It has been ridiculed and scorned and panned by a nation. The Sunday supplements have fictionalized it, psychoanalyzed it, and tied it into the moon—the full moon; the political press has exhausted language to coin new epithets for it; the power-press—war whoops and ululations! In all this Quoddy itself has said—nothing. In the last few years Quoddy itself has had no mon-

ey, no crusaders, no ballyhoo. Its presentation to the public has been in the hands of its opponents and the wise-crackers.

Before we go on let's check up on some of all this.

Up to a couple of years ago—more definitely when the project was still a private-interest venture and not a New Deal vagary—Quoddy was fairly respectable. Press reports all over seemed deeply interested in it, and that means more or less world interest. The venture seemed to draw admiration, wonder, perhaps pride even, as being a daring economic invasion of the sealed reservoirs of the future. In shackling the untold power of the sea, its founder had solved the riddle upon which engineers of centuries had

## PUBLIC UTILITIES FORTNIGHTLY

spent themselves hopelessly. Then—

The government took hold of the project and Quoddy became outlaw overnight.

PROMINENTLY was the section's lost remoteness played up. One publication of nation-wide circulation recognized no national borders whatever; they cited Eastport as the country of Evangeline, and ran a picture of a typical "village street" in the town that took the natives days to locate—an unknown lane behind a high board fence out back. (In passing, Eastport is an incorporated city.) A nation-wide Quoddy joke derived from a big sign set up along the approach to Eastport by a farmer advertising live stock. It read: "The Biggest Bull in the World." In a speech in 1934 Senator Hastings (Del.) used the word "Quoddyize" to designate vote-bribery. Following that, one big New York daily termed Quoddy "an outrageous fake," and this was promptly seconded by big news all the way from Bangor, Maine, to San Francisco, with repercussions from Salt Lake City.

The power press outdid itself. These began to specialize in headlines that completely perverted harmless Quoddy news. At the same time they began leading forth widow-and-orphan stockholders to whimper Quoddy down. The power committee of the New England council, supposedly organized for the development and welfare of New England, voted disapproval of Quoddy, although its Maine committee is on record for the project. A certain state association of engineers close to Quoddy expressed this chaste sentiment:

There is a strong and growing opposition among engineers to the misuse of engineering talent to the detriment rather than the betterment of mankind. . . . We who have seen tremendous amounts of money expended in isolated locations know that the process is one which is destructive to the character of men.

Ethics? Or mush? I'm not an engineer, I don't know.

NOW why all this with Quoddy? Was any such campaign directed at Coulee, Bonneville, Boulder, or similar projects, some of them infinitely more remote, built at far greater costs and with far less chances of being immediately self-sustaining?

May I digress here to run in a brief outline of Quoddy history and progress,—some of this is not widely known, and to outline it seems necessary because of matter to follow.

Dating from its Maine charter, Quoddy is over ten years old. Its originator was Dexter P. Cooper, an engineer of national standing. Along with his brother, Colonel Hugh Cooper, he had been in on Niagara Falls, Keokuk, Muscle Shoals, Saloniike, and the more recent Dneiperstroy. Coming to the Eastport section some fifteen years ago, he became impressed with the magnificent sweep and flow of the mighty tides of the section as a possibility for hydroelectric power on a vast scale. Strangely enough, on detailed exploration, he found that the natural layout of the coast line and outlying islands seemed to lend itself to the idea with almost predestined aptness. The idea possessed him. He went to work on it. The engineering possibilities settled to his satisfaction, he gave himself completely to the matter of actual development.

## TIME AND TIDE WITH QUODDY



PASSAMAQUODDY DEVELOPMENT

After long and intensive investigation of his scheme, the necessary backing was forthcoming. This comprised four of the leading power interests of the country—please note this—the biggest names in American powerdom.

ORIGINALLY an international project, Quoddy's battle to establish itself began from the start. Its Maine charter, passed almost unanimously by the state legislature, was vetoed by the then governor, albeit with a referendum clause. In direct referendum

## PUBLIC UTILITIES FORTNIGHTLY

the people of Maine put the project over by a vote of ten to one. All this involved delay, however, of almost a year. Quoddy's Maine Charter was granted in 1925, its Canadian Charter about the same time.

Cooper lost no time. The job was begun. A small army of engineers had been at work a year or more, and the project was well under way with half a million dollars spent, when it received the first of its many knock-outs. Canada refused to renew its preliminary charter, then expiring, on the ground that the dams might affect the neighboring Canadian sardine fisheries. There was but one Canadian sardine factory in all the district. It was operated, however, by figures prominent in New Brunswick politics who had been pressing the guaranty of heavy damages. Notwithstanding the fact that a score of American sardine canneries in the Quoddy section protested a different opinion to Ottawa, there was no redress. Canada did agree to investigate. Ottawa put up \$45,000 against a similar \$45,000 of U. S. money to finance investigation. About the only word ever heard of it thereafter by the Cooper faction was through a single contact. A blond young investigator of impeccable Oxford accent called at the (then) Cooper office to ask about some gates and tide flowage. Cooper was then in Russia.

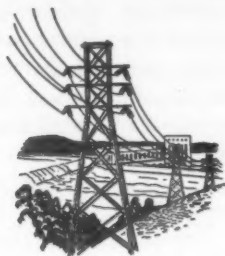
In any case, Cooper wasn't interested. He had reengineered Quoddy, long since. It was already an all-American project in which Canada, naturally, would have no interest.

**T**HE international project had comprised two vast pools—Passa-

maquoddy bay (Canadian), representing a controlled upper pool emptying into Cobscook bay (American), as a lower pool. The all-American project had been engineered by taking the previous lower pool of Cobscook bay and running a dam across the middle of it, thus achieving the 2-pool system entirely in Maine.

Quoddy was moving on again when Wall Street broke. Depression set in. Projects for developing huge power were out. Quoddy was laid aside. Cooper, bludgeoned sore, but unbeaten still, took advantage of the slack tide in Quoddy's fortunes to accept a commission from his brother Hugh to go to Russia and supervise the completion of the Dneiprostroy, the hundred-million-dollar hydroelectric project on the Dneiper. This job was finished in 1934. Cooper came back to this country alert anew to the main chance for Quoddy. The new administration was trying out amazing new ventures. Cooper took Quoddy to PWA, backed then by universal popular support of the state of Maine. PWA conceded its engineering, but evidently considered it too great a chance to finance as a private-interest venture. Quoddy was rejected.

**S**TILL fighting, Cooper was led to offer the whole Quoddy layout to the government as a reconstruction feature, with a main motive of relief. At that time Maine stood the third state in the Union in per capita payments to the jobless. After due consideration the idea was approved, at least to the extent of further investigation. In August of that year (1934), Secretary Ickes went to Eastport to look over the actual Quoddy



### Quoddy's Greatest Implication

**Q**UODDY'S greatest implication lies in its undoubted power to salvage its entire section, to rehabilitate permanently a region well worth saving. Something like this, it would appear, is the motive behind all these other thirty-six dams. Each and all are the slowly materializing visions of a nationally bettered future. Will they achieve all this? I believe so, but it is not for this writer to say. I know only that at one time the gigantic Niagara, the dauntless Union Pacific, the fantastic Panama were widely derided visions like some of all these; yet they opened up—empires."

---

country. Meanwhile the President had written Governor Brann a long communique expressing his interest in Quoddy, and suggesting that a commission of Maine men be appointed to look up outlets for power. Along with Ickes and Governor Brann came the committee chosen to look up power markets, a group headed by President Sills of Bowdoin College.

Quoddy seemed actually in the cards at last. But four months went by without action. The fall elections, with Maine gone notoriously Democratic, were long since past. But Cooper and Quoddy seemed forgotten. Notwithstanding administrative interest, notwithstanding Ickes' visit to the section and his encouraging talk to the people of Eastport, Quoddy had bogged down. All over,

the vote-bait prophets were jubilant—the power and political scene wore a contented smile like a cat full of canary. Waiting endlessly, Cooper broke—became seriously ill. From sickbed a last desperate onslaught was planned—on headquarters itself—was carried out by personal contact with Washington. Followed certain revelations as to Quoddy matters in Maine. Then—

Something smashed through.

**C**AME action—efficient action. Experts, technical, legal, and financial, were despatched to Eastport. These men, along with Cooper and assistant engineer, were constituted a commission to take up matters where the President and Ickes had left off. Busy day and night on their own re-

## PUBLIC UTILITIES FORTNIGHTLY

ports, the Washington contingent took time off to go to Augusta and enlist the state planning board to report out industrial, social, and economic aspects of Quoddy. The planning board had already studied the project. It went into action. The report was ready in January, 1935. . . . When the big four billion work relief bill of that time went over, Quoddy went over with it.

Now—

Quoddy is finally being built. In a minute we'll give consideration as to a possible why. Meanwhile I'm going to reiterate what has been stated before—that in the last two or three years Quoddy itself, with no money, no promoters of its own, and no strong political support, has been at the mercy of a hostile press and power set-up always; that most of its publicity has been exceedingly long-distance, full of inaccuracies, and misstatements, with no way of come-back on the part of Quoddy itself.

Recently a periodical of big national circulation placed a great deal of stress on the findings of the Maine commission appointed to look up outlets for power. The Maine commission did—nothing. Hailing from various sections of the state, they apparently knew very little either about the job or its implications. They were appointed in August, 1934, and up to the close of that year, so far as is known, had made no move to advance Quoddy whatever.

**O**F Quoddy engineering, outside comment has had more unpleasant things to say than of any of its many sins.

In all the history of Quoddy I can

find no actual official doubt as to Quoddy's engineering. Two governments evidently considered it worthy of a tryout. Four power companies backed it. Even PWA, later, conceded that its engineering was fairly sound.

Now, please note: Since those days Quoddy has been taken in hand by the War Department. In the interests of economy changes have been conceived, weighed, considered in their every phase—new features appraised, whole elements abandoned—changes going on constantly. Now with all this in mind, how is it possible for Quoddy to be fought out in costs and kilowatts by someone on the remote outside, when we are told that the final engineering of certain major factors is still under consideration?

A detailed layout of Quoddy politics the last few years presents a jargon like the map of Ethiopia. Quoddy politics have been unorganized, free-for-all, catch-as-catch-can, with all the maze of cross purposes the word politics implies. One truth emerges at a glance: to accuse Quoddy of being a gargantuan vote-getter is absurd. Following its perilous press life the past few years it stands to reason Quoddy would pull no votes outside of Maine. Within the state? The people themselves have been wholeheartedly for it. Twice they have rallied to it manfully—once in its original referendum, the second time when it went to PWA. But they have no actual voice in Quoddy and the big bad wolf arrives on their doorstep daily with the morning paper.

As to political leaders—certainly Quoddy has held no Norrises to steer it to outcome. Maine's figures may

## TIME AND TIDE WITH QUODDY

voice themselves clamorously in pre-election tempests, but between whiles their attitude toward Quoddy is reported as a canny policy of laissez faire—in other words “leave it lay.” Of all these it is claimed none has ever been to Eastport with the object of studying Quoddy itself.

DOWN in Maine they feel they need a yardstick as much as anywhere else. Maine power interests are reported to be hostile to Quoddy. That, perhaps, is only to be expected. The Eastport section is served electrically by the Bangor Hydro-Electric Company, with headquarters at Bangor, 150 miles away. Only 2 per cent of its load, however, is delivered east of Machias which is on the route to Eastport 40 miles beyond. As Quoddy cannot plan to sell power in territory served by this concern or any other, hostility would seem to be more or less on general industrial principles.

Power rates at present in Maine are comparatively high. According to the latest analysis put out by the rate survey division of the Federal Power Commission, the average Maine bill for 100 kilowatt hours of domestic electric service is \$5.37. This is considerably higher than the national average of \$4.78. At the same time it is higher than three other New England states, Vermont (\$5.29), Massachusetts (\$5.07), and Connecticut (\$5.06), and only lower than its

nearest neighbor, New Hampshire (\$5.48). So it will be seen that there is room for at least some reduction in Maine rates. Maine is near enough to the dirt-cheap power rates of Quebec and Ontario to know that it can be done.

NOW why Quoddy? I have before me a list of Federal dams. There are 37. Some are noted. Some are in places unheard of. To see them in a list is staggering. It rips open the mind. This damming of water is not a mere incident. It's an epoch.

In all the list Quoddy is unique. All the 36 others dam rivers. Quoddy dams the tide. The rivers are each and every one subject to fluctuation of flood and drought. Of power dams Quoddy represents the sole instance in which future power capacity can be determined ten, twenty, fifty years from any given hour with absolute accuracy. Each and every dam deals with future welfare of sectional United States. Why leave Quoddy out?

These are some of the points which Quoddy's supporters down there have always argued in its favor:

First: Originally a great international project of double the cost of the present venture, Quoddy was financed by four of the leading power companies of America—long before Brain Trusts and New Deals. They had appraised it, had worked on it two years,



“IN all the history of Quoddy I can find no actual official doubt as to Quoddy's engineering. Two governments evidently considered it worthy of a tryout. Four power companies backed it. Even PWA, later, conceded that its engineering was fairly sound.”

## PUBLIC UTILITIES FORTNIGHTLY

had bought abutment and land options along its entire chain of construction from Lubec at one end of the New Brunswick shore twenty miles away. They were actually building it. Why? Wasn't it solely with the expectation of financial profit?

**E**ASTPORT is situated immediately at tidewater, deep tidewater, on one of the three finest harbors in America. At times when half the Atlantic seaboard is frozen fast in ice, Eastport harbor is as serenely clear as in July. As a possible location for big industry it is thus accessible to the basic raw materials of the world every day in the year. It is nearer to Europe than any other town in the United States. For these reasons supporters of Quoddy claim it to be sitting on the very margin of world markets—of world trade.

There are over 29,000 farms within a radius of 150 miles from Quoddy, most of them not electrified. There are almost 100 canning plants. One of the largest and finest deposits of limestone on the continent is claimed to be at St. George, N. B., 20 miles away. Nitrates have always figured prominently in plans for Quoddy since its beginning. Salt water transportation for phosphate rock comes in here prominently. Maine stands fifth in all the states of the Union in the use of fertilizers; at present most of this comes from Canada. One attractive state possibility seems assured—Quoddy will bring great hordes of tourists to the section always. A vast number of Americans use the eastern gateways to the Maritimes, Gaspé, and Canada, and Quoddy is right on the way.

Now all this without consideration of outside industry.

**I**N addition to acting as consulting engineer, Dexter Cooper is associated with the National Power Policy Committee and is engaged in finding markets for power. He makes the statement that he has already interested big industry from outside to the extent of practically all the power that will be available. Given competitive-priced power these industries seem attracted to the section by cheap land-sites, low overheads, attractive labor conditions, and chiefly by the advantages of salt water transportation in and out.

Much money going into Quoddy is pure relief and should be so regarded. No matter what the eventual cost of the job, it has served profoundly in this respect. All eastern Maine was desperately hard hit by the depression. Some of its industries, perhaps lumber and sardines, may never come back. For three years, Eastport itself was practically supported by Red Cross and relief.

**Q**UODDY's greatest implication lies in its undoubted power to salvage its entire section, to rehabilitate permanently a region well worth saving. Something like this, it would appear, is the motive behind all these other thirty-six—dams. Each and all are the slowly materializing visions of a nationally bettered future. Will they achieve all this? I believe so, but it is not for this writer to say. I know only that at one time the gigantic Niagara, the dauntless Union Pacific, the fantastic Panama were widely derided visions like some of all these; yet they opened up—empires.



## The TVA Potpourri

*WITH the employment of by-product or arbitrary method of cost allocation the Tennessee river development or other multiple-purpose projects can, in the opinion of the author, defeat the private producer of electricity no matter what the weapons of the latter may be.*

By C. EMERY TROXEL

THE Supreme Court decision upholding the Tennessee Valley Authority's activities at Wilson dam as reasonably related to Federal powers to provide for national defense has focused attention on those phases of the TVA program other than power production.<sup>1</sup> Though the right to sell surplus power was not an issue in this Supreme Court decision, the dicta of the opinion infer that a Federal government hydroelectric program is within the law to the extent that it is justified as a by-product of some undisputed constitutional function such as national defense, navigation, irrigation, reclamation, or flood control.

Let attention be given to the combined purposes of flood control, navigation, and power generation in the TVA. Further broadening of the program results from specified attention to national defense preparation. When the control of floods, the generation of electricity, and the forma-

tion of additional inland waterways are combined purposes of a single program, only the government seems willing to undertake the construction of such works. Because society may demand these improvements, the cost of which is not easily assignable to those receiving benefits, it devolves upon the government to assume the cost and responsibility for these programs. No private company has ever been engaged in the construction of huge dams that floods may be controlled. On the contrary, the dams or levees have usually been constructed by the Federal government, for there is a belief that a social responsibility rests upon the government to protect those risk-taking landowners and people who reside on lowlands or flood plains. Thus, the cost of these projects is diffused customarily among all taxpayers.

ONE of the knotty problems resulting from TVA activities involves the allocation of the fixed charges or

<sup>1</sup> *Ashwander v. Tennessee Valley Authority* (1936) 297 U. S. 288, 80 L. ed. —.

## PUBLIC UTILITIES FORTNIGHTLY

fixed investment in dams and equipment among the four purposes of the river developments: power generation, navigation, national defense, and flood control. Because none of the objectives of such multiple-purpose programs is responsible for all the annual interest, depreciation, and maintenance costs of the dams, the manner of allocation of these costs places an important problem before the administrators of the TVA. Many engineers and accountants will readily tell you that such allocations can be made, and that the process of making them is not a difficult one.

Any efforts of these professions, however, to allocate such costs precisely or equitably must be questioned. Either these allocations will be arbitrary, lump-sum estimates or the principle employed in the allocations will be a questionable one. One of the troubles may be an appraisal of the social benefits obtainable from flood control or inland waterways. Can any accountant or engineer derive anything less than an arbitrary cost allocation when the guide is these intangible returns to society or segments of society? Does it not seem that it is impossible to distribute precisely this indivisible sum of fixed costs? Nor does it seem likely that Congress or the President could distribute politically these joint costs. Moreover, these decisions would be inconsistent with our democratic form of government. For projects of such social nature part of the costs—those costs not specifically and unquestionably attributable to a single purpose of a multiple-purpose program—may be most easily assigned to general costs of operation, *i. e.*, they will not be arbitrar-

ily allocated to separate purposes of the plan. These general costs will be assigned probably to derived social benefits or to the several purposes of such programs. Income obtained from taxation will erase the pecuniary deficiencies.

How do the administrators of the TVA propose to distribute these joint costs? Certainly their press releases, speeches, and reports have given no assurance of a final policy for this controversial issue. This extract from the June, 1934, report of the Authority reveals a suggestion of the manner in which these joint costs will be distributed.<sup>2</sup>

These policies look toward the widest possible use of this surplus power, especially in homes and on farms. . . . In carrying out its statutory duties with respect to the development of the Tennessee river for navigation and flood control, and to promote the national defense, the Authority is constructing additional dams. As a by-product of these dams additional hydroelectricity will be produced. . . .

Furthermore, the National Resources Board has said that<sup>3</sup> “. . . in some cases its (the Federal government's) plans for flood control, or other uses of water would enable it to provide hydroelectric power as a by-product at slight direct cost.” Thus, it appears that the Authority treats electricity as a by-product of

<sup>2</sup> *Annual Report of the Tennessee Valley Authority, 1934*, p. 2. In this entire report no other mention is made of the cost of TVA electricity.

<sup>3</sup> *Report of National Resources Board, 1934*, p. 40. Elsewhere Mr. Lilienthal said, “As you know, and I do not need to remind this committee of the fact, the electricity program (of TVA) is incidental to the other great public purposes.” This is an extract from Mr. Lilienthal's testimony before the Committee on Interstate and Foreign Commerce of the House of Representatives. *Hearings on H. R. 5423, 74th Cong., 1st S., pt. 3*, p. 1947.

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these presumably more important objectives: flood control, navigation, and national defense.

The essence of this treatment of electricity as a by-product—at best it is an arbitrary procedure—is to assess all clearly separable costs and investment incident to power generation to the costs of producing this “surplus” power. Obviously, this scheme of cost distribution would allocate only the interest and depreciation on turbines, generators, power lines, power houses, and similar equipment plus other separable costs as the portion of joint costs assignable to the cost of generating electricity.

**B**ECAUSE flood control, in particular, probably has been assigned by administrators of TVA a position of priority or greater importance, users of electricity obtain lower rates than those paid private companies. It may be noted parenthetically that the Ontario Hydro-Electric Commission, although it is a public venture in the production and sale of low-price electricity, may not avail itself of by-product cost allocation for electricity because it is essentially a single-purpose project. The TVA will likely be able to offer lower electric rates than those granted by the Ontario Commission. Perhaps TVA officials will not use the by-product method of cost allocation; they may arbitrarily fix a distribution of these general costs, and this process may (or may not) erase some of the

lack of uniformity existing between private and governmental costs of production and distribution of electricity.

How did the Authority approximate the cost of \$47,000,000 for Wilson dam power plant? The Authority has suggested usually that 50 or 60 per cent of the estimated cost of the Wilson plant should be allocated to national defense and navigation. What was the basic principle utilized in the Ashwander Case that permitted allocation of more than half of the value of the Wilson dam to national defense and navigation? Does the \$20,000,000 which is fixed as the “present value of Wilson dam for power purposes” include only the power plant and generating equipment or does it include a portion of the “present value” of the dam? <sup>4</sup> Perhaps these valuation figures for the Muscle Shoals development may be employed only temporarily, since “it was felt advisable to await the accumulation of a greater amount of unit cost data at Wheeler dam before arriving at a final valuation of Wilson dam. . . .” <sup>5</sup> In any event, a straightforward explanation of these allocations might be substituted for the present shadow-boxing tactics.

**T**HERE is, apparently, an arbitrary cost allocation for the Muscle Shoals development, although other

<sup>4</sup> *Hearings on H. R. 5423, op. cit.* p. 1950.

<sup>5</sup> *Annual Report of TVA, 1934, p. 33.*



**Q** “WITH employment of by-product or arbitrary method of cost allocation, TVA river developments, or other multiple-purpose projects, can defeat the private producer of electricity no matter what the weapons of the latter.”

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comments of TVA officials reveal adherence to the by-product method of cost distribution. The generally admitted treatment of electricity production as a by-product of other purposes does not harmonize, moreover, with the assertion that the "Authority is in a position, on the basis of present rates, to repay . . . every penny that was invested in Wilson dam for any and all purposes."<sup>6</sup> Since TVA wholesale prices for electricity are reputed to be only a few mills below comparable charges by private companies, it is possible that more than the separable costs will be paid.

Thus, the suggested methods of cost allocation for the production of electricity may be summarized: (1) The by-product method; (2) an arbitrary distribution of costs as represented by the Muscle Shoals allocation, and (3) the payment of the cost of all purposes of some of the dams with revenue from the sale of electricity. These divergent, disharmonious suggestions of TVA officials leave one dubious of the finality of any cost allocation method presented by the Authority.

**W**ITHIN the TVA the problem of cost allocation is complicated because the Norris dam is primarily a flood control or water storage dam and not distinctly a power generation unit, and, thereby, the steadiness of power output at the run-of-the-river dams will be enhanced. Wilson dam, for instance, will have a greater and steadier productivity of electricity because Norris dam exists for water storage during the periods of heavy rainfall. The existence of Norris dam

unquestionably makes Wilson dam a more valuable source of electricity. If, as proposed in future plans for the valley, other flood control dams are constructed on tributaries of the Tennessee river, this cost problem will become more pertinent. Have TVA administrators considered that a portion of the costs of dams which primarily control the rate of water flow should be allocated to the cost of electric power production? Certainly nothing has been seen by the author to indicate that this sort of allocation is deemed necessary.

Again it seems probable that the by-product method of cost allocation will be utilized. It is the method of cost distribution which will be understood readily by voters and supporters of TVA. Moreover, this method of cost accounting is not new to industry. It will permit the desired low rates for all power users in the valley, thereby recruiting local support for the entire project. Purchasers of electricity in the Tennessee valley will receive a windfall. Because TVA men declare the need for lower electric rates, this by-product cost accounting method fits neatly into their objective.<sup>7</sup>

**E**VEN though it may be difficult to distribute precisely general expenses among the several purposes of TVA river developments, there would seem to be a lack of cogent thinking if electricity is declared a by-product of the other main objectives. It is being discretionary to term electricity a by-product of all plants because some

<sup>6</sup> *Hearings on H. R. 5423, op. cit.*, p. 1950. Mr. Lilienthal's testimony.

<sup>7</sup> David Lilienthal, "A Five-Point Program for the Electrification of America," Press Release, Nov. 11, 1933, p. 5. This speech was given before the Lawyers' Club of Atlanta, Georgia.



### Reason for the By-product Idea

**"T**HE constitutional challenges of TVA probably prompt the common assertion that electricity production is a by-product of these other purposes since it seems that there are better opportunities to admit constitutional propriety of the flood control, navigation, or national defense purposes of TVA. Officials of the program wish to subordinate for legal reasons the importance of the power production program."

dams are erected to control destructive floods. The run-of-the-river dams such as Wilson or Wheeler have not been termed primarily flood control dams from which the by-product electricity will be produced. TVA men recognize that designation of electricity production as an after-thought at these dams would be evidence of insincere pleading. But the cost of producing power at these dams may be reduced because much of the expense and investment is assigned to other purposes of the river developments.

Likewise, some consideration ought to be given the allocation of costs of the Norris project since it will improve the regularity and amount of power production at dams down the river. It is admissible reasoning that Norris dam is primarily devoted to water control; certainly in this instance, more than others, electricity seems to be subordinated to other purposes.

**T**HE constitutional challenges of TVA probably prompt the common assertion that electricity production is a by-product of these other purposes since it seems that there are better opportunities to admit constitutional propriety of the flood control, navigation, or national defense purposes of TVA. Officials of the program wish to subordinate for legal reasons the importance of the power production program.

The proposed power program would consider the "... adverse economic effect upon a privately owned utility . . .," but, "the authority cannot decline to take action solely upon the ground that to do so would injure a privately owned utility."<sup>8</sup> Because private producers of hydroelectric power construct a dam as well as a power house and other equipment, their costs of producing electricity may, obviously, be larger than those

<sup>8</sup> Annual Report of TVA, 1934, p. 23.

of the government. If they continue production of electricity it will be a profitless business: it will be a process of using up the fixed investment. It means death for these power companies unless they sell their plants and equipment to these governmental agencies.

With employment of by-product or arbitrary method of cost allocation, TVA river developments, or other multiple-purpose projects, can defeat the private producer of electricity no matter what the weapons of the latter. Wherever the topography, the density of population, and the industrial future are favorable, this sort of governmental project may be expected if the present example delights voters and receives the Supreme Court's approval. Any extensions of similar projects to other regions dooms private power companies which face competition similar to that presented by the Federal government in the Tennessee valley.

THE proposed use of the cost of TVA electricity or power produced under similar circumstances elsewhere as a "yardstick" to measure the cost of producing power in a privately owned plant is a fallacious pronouncement. "Yardstick" discussion and announcements apparently have political merits since they agitate or stir moribund voters to action. Or is it a political announcement that will give the already angered consumers of privately produced electricity further cause for criticism of public utility interests?

Eventually this sort of discussion may damage, however, the prestige of these extensive governmental plans for

river, industrial, and human improvements. When the inaccuracies of the above assertions are unveiled, unfavorable public sentiment may confront these multiple-purpose governmental programs. Because TVA or Grand Coulee power, for example, is or will be produced under circumstances dissimilar to private production of power it is ridiculous to speak of the proposed "yardstick." The above discussion of the problem of cost distribution is sufficient evidence of these divergent conditions of electricity generation. Nevertheless, a combining of purposes in a single program may be socially desirable since the total production cost of several services produced with the same system may be lower than the total cost of separate production of the services.

IF the government's cost of producing power is to serve as a benchmark for controlling prices of private sales of electricity, the costs incurred by the government must not be distributed in a fashion which reveals unwarranted advantages of government ownership. Instead of the proposed accounting methods, the TVA authorities might allocate to their power generating units a sum which will equal the investment per unit of output in private plants. Within this framework there might be acceptable reasons for "yardstick" comments. But this method of establishing a "measuring stick" of power costs would not leave much of the investment to be allocated to the other purposes.

An annual interest rate of  $3\frac{1}{2}$  per cent of the investment has been used to calculate the cost of TVA electricity because that is the interest cost of the

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government funds employed. No private power company can borrow money at this low rate of interest. As long as TVA pays 5 per cent of gross sales to the Alabama and Tennessee governments plus the  $7\frac{1}{2}$  per cent of gross revenue reserved arbitrarily for the Federal government, it cannot be claimed that private companies pay substantially higher taxes than does TVA. The depreciation policy of TVA, which was criticized by Comptroller McCarl, will need revision before it represents a fair approximation of depreciation experienced. McCarl would assess 2 per cent of the investment as the annual depreciation charge on the TVA river developments. These are additional inquiries about efficacy of the TVA "measuring rod" of light and power costs.

SOME students of state public utility regulation may feel that state regulation of power companies in Tennessee and Alabama has not been the most effective in the country and that such talk of "measuring sticks" reflects on these poorly manned state commissions. In Mississippi there is no state regulation of electric public utilities. Some evidence of the Tennessee commission's quality may be found in its decision in the Tennessee Electric Power Case.<sup>9</sup> But one cannot justify the TVA electric rates by

<sup>9</sup> *Re Tennessee Electric Power Co. (Tenn.) P.U.R.1930E, 312.*

merely disparaging local regulation. Possibly Federal regulation of holding companies will answer partially the difficulties of state regulation. Inadequate regulation, where it exists, is a problem to be answered by the voters of this area or the nation; it should not be rebuked by a governmental power program partially paid for by unbenefited taxpayers. In truth, the government's objective, if realized, will obviate the need for state regulation in many sections as soon as private producers of power are routed.

No discussion of the TVA program would be complete without some consideration of rural electric service. An increased use of electricity by farmers is an objective of the TVA. It should be remembered that private power companies during the twenties began offering promotional rates designed to increase the rural load. Though the amount of power consumed and the number of customers increased rapidly until 1928, there has been a gradual decline in the number of new rural customers since that year.

No other section of the country, except the sparsely settled Rocky Mountain states, reveals the same paucity of rural electrification that is found in the South. These predepression figures<sup>10</sup> portray the limited pos-

<sup>10</sup> 15th U. S. Census, *Census of Agriculture*, 1929. There has been approximately a 3 per cent increase in the number of electrified farms of the U. S. since 1929.



"... private interests throughout the nation have endeavored to build the rural market for electricity, and where conditions have been propitious they have succeeded. But the Tennessee valley is not an area which promises bountiful success to a rural electrification plan."

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sibilities for rural electrification in states neighboring the TVA development.

	<i>Per Cent of Farms with Electricity</i>	<i>Ratio of Electric Motors Used by Farmers to Number of Farms</i>
Tennessee	2.74	.49
Alabama	3.50	.26
Mississippi	.75	.16
Georgia	1.40	.38
Kentucky	2.38	.45
United States	9.16	.41

No power company of the country has worked more assiduously to build a rural load than the Alabama Power Company, and the above table reveals the inability of Alabama Power to find an adequate rural market for electricity. Moreover, the rural rate schedules of Alabama Power are among the lowest of private companies in this country; they compare favorably with the rural rates of the Ontario Hydro-Electric Commission, even though the latter is located in an agricultural environment more favorable to the development of rural electrification.

**S**ERIOUS students of these problems recognize the opportunities for expansion in rural consumption of electricity if lower rates may be had. Low rural rates on the Pacific coast exist because California fruit farms, ranches, or dairies use a large amount of electricity for power purposes. Sixty-four per cent of the California farms are electrified, and one half of the state's electrified farms have electric motors. Furthermore, private electric interests assert that the rural market is not a profitable source of income unless a power load can be attached.

In brief, private interests throughout the nation have endeavored to build the rural market for electricity,

and where conditions have been propitious they have succeeded. But the Tennessee valley is not an area which promises bountiful success to a rural electrification plan. There is not a prevailing type of agriculture which assures electric power producers that an average farm will consume \$150 to \$200 worth of electricity in a year, the average per farm in such states as California. Other features of southern agriculture, as tenancy and share-cropping or low annual income per farm, may hinder widespread adoption of electricity even though the government believes the social needs of the region warrant a low rural rate.

**A**LTHOUGH TVA officials may conclude that social considerations must be admitted, some regard for the cost of rural electric service must and probably will be shown. If rural electric associations organized by the interested farmers are employed generally, it is likely that these customers will weigh the costs of electricity. In the level sections or along the valleys a mile of rural line including transformers may be built at a cost of \$1,000 to \$1,500; when the terrain is hilly—much of the Tennessee valley is rough—the cost per mile may be \$2,000 to \$3,000. It is probable the 13 per cent of the investment in a rural line is a fair annual sum to be charged for interest, depreciation, and maintenance. This percentage would be higher if lines were financed privately because the government is able to borrow capital at a low rate of interest. On the basis of an approximate cost of \$2,000 per mile the annual fixed cost incident to rural electrification would be \$260 per mile of line; these

## Effect of Government Power Policy on Regulation

**"INADEQUATE regulation, where it exists, is a problem to be answered by the voters of this area or the nation; it should not be rebuked by a governmental power program partially paid for by unbenefited taxpayers. In truth, the government's objective, if realized, will obviate the need for state regulation in many sections as soon as private producers of power are routed."**



are costs incurred even though no current is purchased.

If an average of four customers are obtained for each mile, an average customer will be expected to return a fixed cost of \$65 per year in addition to the cost of the current. When these figures confront each farmer they will hesitate to make the connection unless there is need also for electric power as well as light. It must be remembered, therefore, that it is more expensive to serve electricity to farmers than to urban customers. But these authorities may conclude that a great social or political need exists for more rural electrification, and, therefore, the cost of rural electrification will be forsaken for the intangible guide of social benefits.

**B**ECAUSE the average farm in the states of the Tennessee valley area is small, it is true doubtless that a minimum of three or four farm homes are located on many miles of road. The owners of these homes represent potential customers for electricity. But the extremely large amount of tenancy and share-cropping revealed by the figures on page

240, is one deterrent to widespread use of electricity on farms.<sup>11</sup>

Tenants often represent a poor risk for the investments incident to rural electrification. In the south a counterpart of this prevalence of tenants is the presence of a lower annual income per farm during recent years than may be noted in other agricultural regions. Before graciously granting electricity to some of these farms it might be well to attack the problem of gradually raising the economic and social status of these impoverished tenants. If only electricity is donated generously to the inhabitants of impoverished and tenanted areas, there will be a resemblance to the gift of a top hat to an underfed person who wears ragged clothes.

**I**TS southern agricultural environment may hinder the TVA from achieving a great expansion in rural electrification. In productive, densely populated agricultural areas of the South, which possess few tenants and sharecroppers, these TVA expectations might be realized, but these

<sup>11</sup> Fifteenth Census of the U. S., *Agriculture*, v. 4.

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PERCENTAGE OF FARMS OCCUPIED BY TENANTS

	Total Tenancy	White Tenants		Colored Tenants	
		Cash	Other	Cash	Other
Tennessee .....	46.22	3.81	31.30	1.17	9.94
Alabama .....	64.65	6.47	27.93	12.45	17.80
Mississippi .....	72.16	2.81	18.12	5.86	45.37
Georgia .....	68.22	6.65	31.98	4.12	25.47
Kentucky .....	35.88	3.55	30.33	.06	1.94
United States .....	42.37	6.17	24.91	1.61	9.68



promising locations for rural lines may have been tapped by private companies. Advances will be made by the promotional and appliance selling activities of the EHFA. Low-priced appliances will obtain for a rural line an increased and diverse consumption of electricity.

"Surplus" TVA power will find its way to many rural customers, but there will not be an astounding increase in the percentage of electrified farms. "It remains to be seen whether the TVA can attack the fundamental poverty of the mass of the people in the region who find even the cheapest current, appliances, and good housing beyond their means."<sup>19</sup> Briefly, this great social plan is located in an agricultural area unsuited at present to tremendous expansion of rural electrification unless an unreasonably low rate per kilowatt hour is granted and unless the government does not assess the full cost of rural lines to these prospective customers.

<sup>19</sup> National Planning Board, *Final Report*—1933-34, p. 94.

IN addition to the aspects of the TVA project above considered, there are the matters of inland waterway transportation, flood control, reforestation, and social planning. As to the first it is difficult to justify economically the construction of more waterways at a time when it is believed that approximately one fifth of our present railway mileage is not needed. Shall the railroad problems be multiplied that a few Tennessee river towns may have water as well as rail transportation? Flood control, of course, is undoubtedly desirable, as well as reforestation and the other social benefits, but the question of cost and the national responsibility for such costs for purely regional improvements demand earnest and disinterested consideration. Whether "economic planning" and other social aspects of the TVA could not be conducted as fairly and effectively as independent and truly national movements thereby divorcing them from power development is a challenging suggestion that will some day have to be answered.

**Q** "PATRICK HENRY would go along with me. I could envy his power . . . in denouncing oppressive and unwise measures. If I had his force of speech, we might have accomplished something in the Senate without putting the Supreme Court to the trouble of deciding these matters."

—CARTER GLASS,  
United States Senator from Virginia.



# A Model State Commission for Utility Regulation

## No. 2. Its Jurisdiction

*In the preceding article on this subject the author outlined what he considers to be some of the fundamental requirements for a model state regulatory commission including qualifications for membership, proper method of financing commission work, and the importance of cooperation with other commissions. See PUBLIC UTILITIES FORTNIGHTLY, August 13, 1936.*

By LAURENCE E. BATY

UP to this point we have considered the need of strengthening and broadening the powers of our present state public utilities commissions. More power is needed to control our public service corporations, which in general have developed faster than the regulatory bodies. Non-political commissions with the ability to step across state boundaries, at a minimum expense, were proposed. Now we come to "jurisdiction."

The Model Commission need not take any further jurisdiction over the railroads, except interurban lines, than is now enjoyed by our present state commissions. The Interstate Commerce Commission, while not entirely satisfactory to some, has had a life of trials and experiments which would have to be duplicated if state regulation by coöperation were tried.

Each community has so much local pride, that state interference in a

city-owned plant might be resented. Therefore, publicly owned systems operating within the city limits may be relieved of state control—provided they do not compete with existing privately owned systems.

Nevertheless, if constitutional limits and public feeling can be overcome, it would be well to give the Model Commission, with its experience, jurisdiction over publicly owned plants. In any event, municipalities should be allowed to get expert advice from the commission, provided they pay reasonable costs for such service.

FOR the sake of making fair comparisons, the city-owned utilities should be required to keep a uniform classification of accounts and submit reports the same as privately owned utilities. The advantage of this, even to the city, is obvious.

Publicly or privately owned plants

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built for the sole convenience of their owners, such as lighting city streets or furnishing light and heat to a manufacturer are not public utilities, and so would be beyond the limits of the Model Commission.

The commission should have jurisdiction over privately owned utilities regardless of the size of the city. With the growth of interconnected systems, it is as much folly to attempt regulation of a system by parts as it is for a person having rheumatism to expect one physician to treat the left arm, another the right, etc.

The old system of having each town bargain with the privately owned system operating within the city limits is wasteful and leads to dissatisfaction by fostering the idea of discrimination. Under no conditions should it be tolerated or even necessary under the intelligent operation of the Model Commission.

**I**T is interesting to note that present state commission authority is very limited over city-owned properties. Seventeen commissions have authority over accounting systems, eighteen over rates and rate structures of which seven are limited in one way or another, eighteen require reports but two are limited, and fifteen have jurisdiction over service with two of these limited.

There is some degree of uniformity of control over privately owned corporations, but not nearly enough for efficient and sufficient control. No commission has complete jurisdiction. A few commissions have jurisdiction over ice companies and cotton gins, but to me this appears to be running control up an alley.

Only seventy-five per cent of the commissions can initiate complaints—far less than the number of commissions authorized to act upon the consumers' complaints. The Model Commission should be able to initiate complaints as well as to act upon informal complaints from consumers who do not have the means to bring formal proceedings. However, as mentioned before, unnecessary use of this power must be prevented.

**C**APITALIZATION and consolidations should receive more attention by the commissions in order to prevent consumers and investors from being the victims of guaranties of low grade funded debts, capitalization of promoters' fees, and other financial juggling more or less lumped under the term "watered stock."

In a number of states, existing provisions make securities issued under commission regulation *ipso facto* approved for sale under the Blue Sky Laws. There should be some qualification here. If a commission makes an exhaustive study before allowing a utility to issue securities, such securities rightly can be so approved. But if it be known that only a desultory examination were made, such securities should be studied by the state in which they are offered for sale.

The issuance of securities should be under the control of the Model Commission, which if desired, might co-operate with the securities or Blue Sky division of the state government. The commission should have power to verify the facts presented. The securities department can only review them.

**T**HE right to change contract rates vested in the commission prevents

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attempts to avoid regulation. Otherwise utilities can sign up business under long-term contracts at regular rates with a discount thrown in as bait. This practice also borders on discrimination.

Where joint use of facilities exists, savings sometimes can be brought about. It should be the duty of the Model Commission to see that savings exceeding nominal dividend requirements be reflected in a rate reduction or a refund to the consumer. A note of warning can be sounded here. The expansion and construction necessary to secure joint use of property should be examined to see that the cost does not outweigh the benefits.

**T**ERMINABLE permits hark back to franchises to do business.

Limited-term franchises require considerable bargaining between city officials and the utilities, with quite a possibility of there being some political "squeeze" involved. Furthermore, with the heavy investments necessary to do business, the possibility of frequently having to go through a battle at the polls for a new franchise, the company's investment is none too secure.

To overcome this, the modern practice is to have a franchise of no definite term, which can be terminated with due process of law. This is a

compromise between the limited franchise with no security for the utility, and the unlimited franchise with no recourse to the city.

Here also, the commission gets close to jurisdiction over city matters. But as said before, the Model Commission should have complete jurisdiction over all privately owned utilities whether they operate in a city or not.

**P**RIVATELY owned utilities are further required to make various reports.

The Model Commission should be able to obtain any report it wishes from any utility operating in the state. Whether required by law or at the commission's request is immaterial. The law might require the commission to make periodic requests.

I can see no need of publication except in abstract form. Copies of the reports should be filed with the central information bureau and also should be available to any taxpayer on demand.

When there is new construction, the utility should be required to make separate reports for the benefit of the commission's construction cost department. If available, one of the commission's cost men should be present during construction.

The special reports should include the following:

Cost of equipment:



**Q** "WITH the threat of a complete audit continually over its head, a utility either will be very careful in its reports or go to great lengths to 'manipulate' its books. When the commission audit discloses any manipulation, charges for rectification and correction should be made against the company—plus fines for noncompliance with the commission's rules."

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Manufacturer's quotation broken down into component parts. Lump sum bids or quotations should be frowned upon.

Cost of accessory equipment and material.

Labor man-hours:

This always can be adjusted to conditions prevailing at time of re-appraisal.

Representative time studies:

Made for various tasks, such as laying bricks, digging holes, hauling and setting poles, stringing wire, etc. This information, while bringing together an enormous mass of detail and requiring extra work for the commission's statistician, will avoid future use of vague index numbers, percentages, and unsatisfactory application of handbook figures.

**T**HE above information is usually to be found in total in the company construction ledgers. But at the time of an appraisal when each inventory item is to be priced separately, aids in breaking down the ledger charges are invaluable.

A long list of court decisions makes the cost of reproduction one of the dominating factors in setting the rate base. The only satisfactory way of ascertaining this cost is through an inventory and appraisal. Consequently the Model Commission must have either expressed or implied powers to conduct a valuation.

Having the commission make its own valuation is more satisfactory than compelling the commission to analyze and strike up a balance, often an arbitrary compromise, between sometimes hopelessly contrary valuations.

Audits are as important as appraisals and should be undertaken at the

option of the commission. Periodic, complete audits are too expensive and are only a duplication of effort if the utilities have regular audits by a reputable certified public accountant. The Model Commission should be furnished with a copy of the company audit and the accountant's certificate. This audit can be compared with the monthly reports required of the operating company.

**W**ITH the threat of a complete audit continually over its head, a utility either will be very careful in its reports or go to great lengths to "manipulate" its books. When the commission audit discloses any manipulation, charges for rectification and correction should be made against the company—plus fines for noncompliance with the commission's rules.

A complete audit should be made at the time of an appraisal.

Setting depreciation requirements is a delicate matter based on theoretical considerations. Excessive depreciation charges increase the operating expenses that must be met through the rates charged. Inadequate charges do not allow for the plant rehabilitation, which later may be manifested in poor service.

The utilities depreciation reserve should be examined and opportunities made for adjustment—say every five or ten years.

**A** CONSIDERABLE number of commissions require a uniform classification of accounts to be kept by electric and gas utilities. Thirteen of these states prescribe classifications for electric companies only. Quite a number of states have gone so far as to adopt the classifica-



### Exchange of Commission Information

**"FREE** exchange of information, and coöperation between the various state commissions, will enable regulation to cross state boundaries and prevent milking the consumer under the mask of interstate commerce. Also the regulatory bodies can penetrate the heretofore inaccessible books of the holding companies and more definitely establish the cost of service to the consumer."

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tions of the National Association of Railroad and Utilities Commissioners. To secure the uniformity desired, all commissions must adopt and require the use of the same set of classifications.

So far, the National Association has adopted classifications only for electric, gas, and water companies. The other utilities struggle along with the companies' classifications—which are highly individual—the separate commissions' accounts, or some classifications adopted by the Interstate Commerce Commission.

Let no kind of utility avoid having to keep uniform accounts. There is no need to dwell upon the benefits of uniform classification of accounts when analyzing expenses or balance sheets.

However excellent and complete the classifications are, they never can fit all cases. Each commission as necessity arises should interpret parts or

points of the classifications which do not seem clear or to fit the operating company in question. After an opinion has been received from the central information bureau, copies of the interpretation and ruling should be sent to all the utilities operating in the state where the question was first raised. If the issue be great enough, the central bureau may pass the ruling to the other commissions.

**T**HE Model Commission should have full control over the so-called "management fees" assessed by the holding companies against their operating units. These fees usually take one or both of two forms:

1. A percentage levied upon the gross income.
2. A percentage levied on the cost of new construction.

Special services by attorneys, construction engineers, and other experts of the parent company are extra.

## PUBLIC UTILITIES FORTNIGHTLY

The officials of an operating company cannot or will not testify before a commission just what such fees cover and how the cost of the service to the company was determined. The holding company usually is too remote to be compelled to send a representative.

Attempts have been made by state commissions and the Federal Power Commission to disallow these charges when setting up the operating expenses and construction cost. The most forward step has been to declare the executive payrolls excessive and to set a maximum limit on the official salaries and bonuses.

**S**UCH steps are in effect the tearing away of the corporate veil, which heretofore has been a semisacred article. The disallowing has been on the theory that these fees are nothing more or less than another profit to the holding company beside that allowed on its stock ownership.

To show the problem confronting a commission attempting to settle the value of the services given by the parent company, we might take an extreme illustration, which in one variation or another is quite common.

Assume that there is a parent company, a subsidiary management corporation, a subsidiary manufacturing company, a subsidiary construction unit, a related transportation company such as a pipe line, and the operating company. The parent company through stock ownership and interlocking directorates, controls all.

The operating company pays fees for the services of the management corporation and stands the salaries and expenses of the subsidiary man-

agement corporation's field representatives.

The operating company also buys its equipment from the subsidiary manufacturing company at "regular" prices, and has the new construction installed by the subsidiary construction unit on a cost-plus basis. The gas or electricity is bought from the related transportation company who may have its plants or wells outstate and who fixes the price to be paid by the operating company at the city gates.

**I**F one wishes to go further, he may assume another unit, which is a financing and security sales corporation. The latter extracts brokers' fees from the operating company for finding a purchaser for the operating company's stocks and bonds. The parent company usually is the purchaser. The financing and security sales corporation later may open a security sales department in the corner of the operating company's showroom.

Through the rates of the operating company, the consumer pays the fees, profits, and expenses of its sister corporations and in addition pays the usual 6 or 8 per cent dividend on its stock owned by the parent company. It is easy to see that all the subsidiary companies eventually pay a profit to the parent company or are carried by the more prosperous components of the combination. Taken on a consolidated basis, is not the corporation paying itself a profit—contrary to law and good accounting?

In conclusion, the Model Commission plan offers a broad field of utility regulation which, if intelligently directed, will prevent much dissatisfaction among the consumers and will

## A MODEL STATE COMMISSION FOR UTILITY REGULATION

prevent the utilities from being the pawn of the politicians. Safeguards must be set up to protect the consumer from the work of unscrupulous promoters, and the utility from the hands of an organized group of chronic trouble-making consumers.

FREE exchange of information, and coöperation between the various state commissions, will enable regulation to cross state boundaries and prevent milking the consumer under the mask of interstate commerce. Also the regulatory bodies can penetrate the heretofore inaccessible books of the holding companies and more definitely

establish the cost of service to the consumer.

This will also remove the necessity for another bureau with duplicating jurisdiction to be established in the Federal government. Suitably widespread, the Model Commission will stop the threat of public ownership and operation with its accompanying confusion.

The commissions must have all pertinent data right at hand and should be given wide discretionary powers. But any commission, at all times, should be an impartial judge and umpire, even though it initiates investigations on its own motion.

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### Tales Told on Electric Merchandising

A LADY in a Southern city, after much persuasion, recently decided to have an electric refrigerator put in her home on the strength of sales arguments that the expense of running it would be offset by the elimination of the ice bill. The first month her electric bill was terrible. Even the salesman was amazed. A mechanic was sent to inspect the appliance, did some adjusting and hoped for the best. The next month the bill was worse and the lady threatened to rescind her contract. One day the salesman called unexpectedly and found the colored maid singing happily while ironing clothes directly in front of the refrigerator with its door wide open. She explained, "Yas, indeed, ah always open de do' when ah irons. It gives me such a nice breeze on mah back."

\* \* \*

AN appliance salesman canvassing residents in Southern England not long ago, was trying to sell an electric vacuum cleaner to a rather skeptical housewife. She frankly suggested that he talk less and show her what the machine could do. Rolling up his sleeves, the salesman thrust his arm up the fireplace chimney and bringing down a handful of black soot deposited it on the living room rug. Then the salesman smiled and said, "Now, you'll be surprised, madam. Er—where is your electric switch?" "Switch?" echoed the housewife, surprised indeed, "We use gas!"

\* \* \*

THE merchandising department of an electric utility in a large city was recently holding a special display of technical specialty instruments during a large convention of specialist physicians being held in that city. Included in the window display of X-ray machines, fluoroscopes, health lamps, etc., was a rather complicated looking instrument used by oculists. It fascinated an aged negro who passed the display window several times in open-mouthed wonder. Finally, his curiosity got the better of him and he came into the store and asked the clerk what it was.

"That is an ophthalmometer."

"Sho," muttered the negro, as he backed away cautiously. "Dat's what I feared it was!"



# Financial News and Comment

By OWEN ELY

## *Prospects for Leading "Insull" Companies Improve*

**C**OMMONWEALTH Edison, Peoples Gas Light & Coke, and Public Service of Northern Illinois constituted the stronghold of the former Insull utility empire. These companies have, until recently, lagged somewhat behind the industry in recovery of earnings; this trend seems partly due to the conservatism of the new managements in increasing expenditures for depreciation and maintenance, partly to the imposition of large additional local taxes, and, in the case of Peoples Gas, due also to an unfavorable natural gas purchase contract, together with heavy expenses for changing customers' equipment and for space-heating promotion. The records with respect to consolidated earnings per share on the common stocks have been approximately as follows (financial publications give several sets of figures, depending upon various adjustments):

Calendar Year	Commonwealth Edison	Peoples Gas	Public Service
1935	\$6.39	\$1.61	\$3.73
1934	6.35	3.12	3.19
1933	4.57	4.08	2.65
1932	6.47	6.08	5.71
1931	11.27	10.40	*
1930	13.14	11.05	*
1929	13.84	11.26	*
1928	14.00	11.49	*
1927	13.65	11.75	*

\* Not available (number of shares not reported).

Public Service Co. of Northern Il-

linois in the twelve months ended June 30th reported \$2.39 a share against \$2.67 last year; but net income for the month of June was about 9 per cent over last year.

Commonwealth Edison in the five months ended May 31st earned only \$2.99 a share against \$3.02 last year; but for the month of May net income showed a gain of about 27 per cent over last year. Commonwealth is still plagued by rate litigation, and the heavy tax burden is indicated by the fact that, despite a slight drop in revenues, Federal and other taxes nearly doubled during 1931-35, while the new state tax (which became effective in the middle of 1935) adds to the burden this year. The company now has to pay, in addition to the usual corporation taxes, three 3 per cent taxes on gross.

**P**EOPLES Gas for the first quarter of 1936 reported only \$1.03 compared with \$1.21 last year. In the second quarter, however, 94 cents was earned compared with 58 cents last year. The company, also affected by the new state tax effective last July, has attempted to raise rates by a corresponding amount and having been denied this relief by the state commission, has proposed a new schedule of rates. These have been suspended by the commission until November pending hearings.

Peoples Gas has been greatly handicapped by its natural gas contract. The 1931 agreement with the Natural Gas Pipeline Co. of America provided for payment of a capacity rental at the rate

of \$5.5358 per month per thousand cubic feet of maximum daily demand, with this maximum daily demand fixed at 130 million cubic feet beginning January, 1935. Modification of this contract during 1935, however, reduced the capacity-charge rate to \$5.25 and the maximum daily demand to 110 million cubic feet for 1935 and 120 million cubic feet for 1936 and subsequent years. The commodity-charge rate of 6 cents per thousand cubic feet of gas delivered remained unchanged.

WHILE gas sales increased about 22 per cent last year, about four fifths of this gain reflected sales to other gas utilities and to industries; sales to general customers under higher rate brackets gained only about 9 per cent. During the past four calendar years, volume sales increased about 131 per cent, while gross revenues increased only about 8 per cent and net income dropped 85 per cent. About nine tenths of the gain represented low-rate business, including sales on an "interruptible-supply" basis. With four fifths of revenues derived from general customers, the company has conducted an aggressive campaign for space-heating business.

TWO favorable factors this year are the reduction of \$500,000 in space-heating promotion expenditures and interest savings resulting from the refunding program, which are estimated at around \$200,000 for the limited period during 1936 when they are effective. On an annual basis the refinancing saving is estimated at \$775,000, about \$1.13 a share. Looking ahead, the gross sales tax will be reduced to 2 per cent beginning with 1937 and the company has stated that it intends further to reduce space-heating promotion expense (the reduction for 1935 amounted to about 40 cents a share).

Because of the nature of the natural gas contract, it seems possible for earnings to increase with considerable rapidity as gas sales increase—as illustrated by the sharp gain in earnings in the second quarter—although it may be some

time before the company can recover anything like its former earning power.

### *North American Company*

THIS department, in the July 16th issue, included the following under the heading "Changes in North American Co. System":

The registration statement also disclosed that North American Co.'s holdings of North American Light & Power Co. (which up to ten years ago was an independent system) have increased from the 43 per cent held during 1926-31 to 73.5 per cent at December 31, 1935.

Use of the word "disclosed" may have inadvertently given the impression that the information was only being made available by the North American Co. for the first time, in the registration statement filed by American Cities Power & Light Corporation. The North American Company's annual reports for each year since 1931 have clearly indicated its relations with the North American Light & Power Co.

### *Government Seeks Single Test of Holding Company Act*

THE Federal government has finally carried to the Supreme Court its struggle to have the Electric Bond & Share Case used as the "official test case" to determine the constitutionality of the Utility Act of 1935. The utility companies have steadily maintained that this case did not represent all the issues involved and that an eventual consolidation of suits brought against the government by a number of other utilities would afford a broader test.

The Federal government gained one round in the legal battle through a decision of the District of Columbia Supreme Court, staying proceedings in various suits brought by utilities; but the latter gained the next round when the District of Columbia Court of Appeals reversed the lower court's order. Now

## PUBLIC UTILITIES FORTNIGHTLY

Solicitor-General Reed has gone directly to the Supreme Court of the United States, requesting it to designate the Electric Bond Case on the ground that it would provide more "speedy and effective adjudication."

While more than forty suits were initiated by the utilities in twelve Federal courts last November-December, the struggle seems to have narrowed to the seven cases in the District Supreme Court (brought by North American, American Water Works, and others), as against the Electric Bond Case. The preference of the highest court, regarding the scope of the test case it will hear, will presumably not be indicated until after the summer recess.

### *Rail Electrification Urged by Federal Power Commission*

THE Federal Power Commission in a recent report suggested that some 5,400 miles (12,000 miles of track) on 20 railroads be electrified. Cost of such a program was estimated at \$600,000,000—a large sum for the railroads to undertake to raise in "new money" under present conditions.

It seems likely that the report will have little immediate effect, for rail electrification, a "live issue" a decade or so ago, has languished in recent years. The rapid development of the Diesel-electric engine, intensive development of steam-engine efficiency, and the substitution of light-weight alloy steel in train construction, are all cogent reasons for shelving expensive electrification programs. Funds can be raised more easily for new equipment through low-coupon, easily-marketed equipment-trust certificates, than for way and structures changes financed by mortgage bonds or debentures.

Moreover, the experience of the railroads with electrification programs has not thus far perhaps proved any great advantages. The St. Paul, one of the early adopters of electrification, is in receivership, and so is New Haven. The

Pennsylvania, which electrified from New York to Washington in recent years, has not indicated any further plans; and New York Central seems unlikely to extend electrification to Buffalo as once discussed. Further electrification around large terminals such as Chicago might well be considered, but the Federal Power Commission's broad proposals can only be of academic interest.

### *New York Transit Hearings to Open Soon*

HEARINGS before the transit commission, on the Seabury-Berle definitive plan of transit unification in New York city, will begin September 10th. However, the probability of continued long delays, and of bickerings between groups of security holders over respective shares in the lump sums allotted to the three major companies under the plan, seem reflected in the continued wide disparity between the market prices and the amounts which eventually may be realized. Following is a comparison of the equities under the plan, as estimated by *The Wall Street Journal*, and current market prices:

	Equity under Plan	Recent Market Value	Approx. 1936 Range
B. M. T. common . . . .	\$60*	\$52	40-54
I. R. T. common . . . . .	35	14	11-19
Manhattan "Guaranteed" . . . .	90	34-40	32-57
Manhattan "Modified" . . . . .	43	16	14-23

\*\$5 added to *The Wall Street Journal* estimate to include approximate equity in remaining trolley values.

### *TVA Subsidized by Taxpayers about 1½ Cents per Kilowatt Hour*

As pointed out by William A. Carpenter, economist of the Edison Electric Institute, TVA's accounting methods make little allowance for interest on cost of the development. Such interest, as he shows in an elaborate analysis

## FINANCIAL NEWS AND COMMENT

published in the Institute's July bulletin, would total close to  $1\frac{1}{2}$  cents per kilowatt hour on power sold. Mr. Carpenter states:

As pointed out by the author last year in connection with the finances of the British "Grid" system of integrated electricity, where much of the same sort of thing is going on, the capitalized deficits of earlier years quickly involve the enterprise in a steepchase with compound interest.

The work on Wilson dam began some eighteen years ago and by 1926 the total interest had compounded to over \$7,000,000, bringing the total taxpayers' investment at that time to over \$50,000,000. Following the completion of Wilson dam in September, 1925, political conditions prevented any clear-cut, long-term disposal of the power and during the next eight years power was sold only intermittently, resulting in a net loss, after allowance for compounding interest on the 79 per cent of investment assigned to power (21 per cent was assigned to navigation), to \$8,622,000. This does not take into account the "stand-by" Sheffield steam plant, which cost \$12,000,000 and ran only two weeks in 1919.

Thus allowing for a 21 per cent diversion of the original investment to navigation, the total cost of the property (less income received) when turned over to TVA in 1933 should be figured at over \$51,000,000, including interest. During the two years of operation by TVA ending June, 1935, a deficit of about \$2,337,000 is estimated, and the investment (including this deficit) mounted to \$57,445,634. This total did not include overhead costs in government departments for procuring funds and rendering accounting services, or for the accumulated depreciation or amortization on the investment.

**P**ROCEEDS of the sale of power from Wilson dam in the fiscal year 1934-35, divided into the above-stated deficit for that year, indicate that taxpayers were paying nearly  $1\frac{1}{2}$  cents for every kilowatt sold. The TVA received about six tenths of a cent per kilowatt hour for power sold to municipalities and

county power associations, but the actual cost of the power (without any allowance for depreciation) was over 2 cents per kilowatt hour. The "bonus" in this reconstructed TVA yardstick would be even larger under a thoroughgoing accounting provision for losses on local distribution systems, depreciation, etc.

The Federal Power Commission, the Federal Communications Commission, and the New York Public Service Commission are now engaged in a program to force private utility companies to set up on their books, so far as possible to determine, the cost of all their properties to the *original builder*. Actual cost (which fairly includes interest on investment during any period of disuse) is being emphasized as a proper test of property value for rate purposes. Hence the cost figures arrived at by Mr. Carpenter might very logically be set up on the books of the TVA, after verification of his computations, as a base for the famous "yardstick" rate.

Referring again to the amount of original investment diverted to the cause of navigation, Mr. Carpenter mentions that operation, maintenance, and accrued interest on the investment during the seven years 1927-33 resulted in a total expense to taxpayers of \$3,575,000, which was four times the total value of all the traffic passing through the locks during that period. Nevertheless, on the plea of aiding navigation the TVA is now in the process of diverting some \$30,000,000 more of original costs to navigation, reducing the electric investment (not including interest) to about \$20,000,000.

Is this process of manipulating costs to be continued year after year in the vast new hydroelectric enterprises in which the government is now engaged? Why should not honest accounting be required for government enterprises as well as private ones? And can any "write-ups" of private utilities be cited which would compare in magnitude with the write-downs resorted to by the government to conceal the past inefficiency of government operation and the magnitude of taxpayers' losses?

### *Rivalry for Control of Jersey Central Power?*

ACCORDING to press reports Associated Gas & Electric System, despite its long fight against threatened bankruptcy, will compete with Public Service Corporation of New Jersey in bidding for 712,411 shares of common stock of the Jersey Central Power & Light Co., which are to go on the auction block September 10th. This stock represents 68 per cent control and is being sold with some other securities as representing the assets back of the National Public Service Corporation debentures. The sale will reflect final liquidation of the former Insull control of the Jersey Central Power & Light Co. Associated Gas Co. already owns 32 per cent of the stock, purchased from Central Hanover Bank & Trust Co. under liquidation of a loan, and also over 25 per cent of the National Public Service debentures, which were apparently acquired to protect its minority holdings of the stock.

Jersey Central Power & Light Co. supplies electricity, gas, and water to 252 communities in northern and eastern New Jersey. Total assets amount to about \$85,000,000. The plant includes two relatively new generating plants, and a total generating capacity of some 200,000 horsepower. A strip franchise or charter, connecting the northern and eastern divisions, and running directly across the properties of Public Service Corporation, is said to be of great importance in the contest for control.

Public Service Corporation indicated some time ago that it would bid \$5,000,000 for the stock, the equivalent of about \$7 a share. The Associated Gas System has not indicated its plans, but it seems logical to assume that if it should acquire the property, it might link it up with the Staten Island Edison Corporation and make excess power now existing at Jersey Central plants available for the New York, Pennsylvania, and New Jersey groups of Associated companies.

It is possible that the committee representing the National Public Service debenture bondholders might also enter the bidding, since to do so they would require cash enough only to take care of nondeposited bonds, estimated at 25 per cent of the total, and banking accommodations are said to be available.

### *Utilities Power & Light Disposes of English Interests*

PRESIDENT Odium of the Atlas Corporation recently effected the sale of the holdings of Utilities Power & Light Corporation in the Greater London & Counties Trust, Ltd., to Lazard Bros. of London for about \$25,000,000, to be paid in New York in September.

The provision for payment in dollars rather than sterling smoothed the way for re-patriation of former British holdings in one of their important utility systems, the British treasury modifying its 5-year embargo against export of British capital. The treasury evidently felt that a dollar payment would have little disturbing effect on sterling exchange.

Property involved in the sale is valued at about \$120,000,000, the \$25,000,000 cash payment reflecting change in ownership of about 60 per cent of the common stock.

Atlas Corporation, a \$100,000,000 New York investment trust, now enjoys a profit of about 50 per cent on some \$18,000,000 par value of Utilities Power & Light debentures. The stock equity was not held directly but through Public Utilities Securities Corporation (in receivership), of which Atlas is the largest creditor and stockholder.

While Mr. Odium probably did not secure the full market quotations for the stock under his control, it seems likely that Utilities Power & Light has obtained a good price on the original investment, since British stocks are generally selling on a lower income basis than American shares, and utility stocks in that country have not been handi-

capped by government persecution as in the United States.

According to the *New York Tribune*:

There is no doubt that a substantial amount of the parent company's debentures will be retired from funds obtained from sale of the English properties . . . Utilities Power & Light will reduce its fixed charges, which totaled \$2,570,000 last year and which were met to the extent of \$1,186,506 from dividends paid by Greater London and Counties Trust.

In any event the funds received from this sale will doubtless stand Utilities Power & Light in good stead. While bond interest has been paid, a deficit of about \$24 a share has accumulated on the preferred stock, reflecting deficits of the past four years.

### New Financing

NEW financing in the fortnight ended July 31st included:

\$30,000,000 New York Edison Co. first and refunding E 3½s of 1966 at 102; \$13,827,000 Indianapolis Water Co. first 3½s of 1966, at par; \$10,000,000 Arkansas Louisiana Gas Co. first 4s of 1951, at 98; and \$10,500,000 Wisconsin Michigan Power Co. first 3½s of 1961, at 103.

Little new financing appears to be scheduled for the immediate future.

### Quoddy and St. Lawrence Plans Revived

PRESIDENT Roosevelt has indicated in a vacation interview that he still favors both Quoddy and St. Lawrence Seaway—the former practically abandoned by Congress and the latter twice rejected. The formulation of a long-range program for development of hy-

droelectric power in the Northeast was discussed with the Governor-general and Prime Minister of Canada, the President indicating that he favored exchange of power duty-free between the two countries.

According to the *Times*, he emphasized the need based on the history of industrial development, for additional sources of power, although it would be necessary "to educate the people of this country and Canada." He pointed out that industry is increasing its demands for electricity by some 10 per cent each year and that as far back as 1921 he had discussed tidal possibilities with Chairman Owen D. Young of the General Electric Co. This eventually resulted in a 1926-7 survey by Dexter Cooper, financed by General Electric, Westinghouse, and Aluminum Co., followed in 1933 by a survey by government engineers. He referred to advances made since 1933 in the profitable transmission of current over long distances, permitting transmission of this power into the industrial area of New England at reasonable cost. Meanwhile WPA Administrator Hopkins is pondering the best use to be made of the \$1,500,000 model village known as Quoddy City.

Is the President familiar with the facts regarding relative costs of electricity from steam and hydro plants? His viewpoint regarding the necessity for developing hydro resources seems outmoded by modern trends.

During the period 1902-17, according to Census figures, hydro development proceeded considerably faster than steam, while in the years 1917-32 the trend was reversed, despite Federal interest in hydro development.

### "O Death, Where Is Thy Sting?"

"FROM the Hon. Will M. Maupin, Nebraska State Railway Commissioner of Lincoln, comes advice that James Wimplecute, a druggist in that alert city, has invented a pill which he is selling to persons who desire to rid the premises of rats. 'It is not a poison,' says Mr. Maupin. 'Rats love them and after eating two or three become so lazy that the owner of said premises can kill them with a club or throw them into the river where, being too lazy to swim, they drown. Mr. Wimplecute calls them PWA pills.'"

—*Collier's Weekly*

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# What Others Think

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## Has the New Deal Hurt Utility Financial Recovery?

**T**HE case for and against regulation of public utilities by the Federal government was debated recently by Basil Manly, vice chairman of the Federal Power Commission, and Sigfreid F. Hartman, corporation attorney of New York, before the round table on "Business and Government" in the Institute of Public Affairs at the University of Virginia.

Mr. Hartman contended Federal regulation of utilities was not necessary because "the states claim they are giving such protection now and they have not called for Federal help." He added, "if Federal regulation is necessary, and can be justified legally, let us have regulation by law and not by men above the law."

Mr. Manly pictured conditions which existed in the electrical utility field when the present administration assumed office, then outlined regulatory measures adopted and gave statistics to show, he said, that money invested in public utilities is not being adversely affected by the policies initiated by this administration.

He asked when public utilities were in their soundest and stablest position. "Was it," he queried, "back in the 'good old days' when there was no regulation except that of state commissions, which were continually thwarted by litigation; when there was no national control or effective publicity for security issues and promoters were free to take your money for engraved paper; when the absolute control of this great industry was being concentrated rapidly in the hands of a few super-holding companies and so-called investment trusts?"

"Or is the industry really not in sounder shape today when its securities

issues are subject to regulation and control; when Federal and state regulation has been established for holding companies and interstate operating companies; when future mergers and consolidations must run the gauntlet of official approval; and when rates are being reduced to levels that promote constantly increasing use of electric energy by all classes of consumers?"

Mr. Hartman began the round-table discussion by questioning if it was necessary, wise, or safe "to attempt to correct recognized abuses in the field of public utilities by measures which, if not vindictive in purpose, appear at least to be calculated to impair the efficiency, financial integrity, and the immeasurable potentialities for national and social service of this great industry."

Mr. Hartman explained that he was not questioning the need for utility regulation to protect the consumer, conserve and develop natural resources, and to protect the investor. But he argued that under the Federal Constitution the regulation of these utilities is a state and not a Federal function.

**M**R. Hartman charged that in the matter of rate making for privately owned utilities "we see a national administration which, according to elementary constitutional and common-sense standards is in the status of an utter outlaw. The illegality of its position is aggravated by the unsound, uneconomic, unfair, and oppressive character of its conduct."

"Federal rate making is attempted not by direct rate-making legislation—because no one would dare defend its constitutionality—but by sham and pretense that the government in its hydroelectric

## WHAT OTHERS THINK

businesses and in its interference in the internal affairs of the utility companies is not primarily intending to regulate rates but is really engaged in regulating navigation, controlling floods, and running its post office system."

Speaking of utility holding company securities, Mr. Manly stated:

Let us put the facts regarding utility stocks in proper perspective and learn the astonishing truth about this important matter. Here is a chart prepared by the Federal Power Commission showing separately for the first time the index of market values for electric utility holding company stocks and for electric utility operating company stocks. On the same chart and the same scale are plotted the standard Dow-Jones indexes for industrial and railroad common stocks. The story told by the chart begins in 1920 and comes down to May, 1936. Before we examine it more closely, let me direct your attention to the essential fact that the value of holding company stocks is based almost exclusively upon the value of the operating company stocks which they control.

Now let us look at the chart. What do we find? In the first place, from 1920 to 1930, the utility operating company index and the industrial index followed much the same course, with the railroad index lagging below both throughout the entire period. The industrial index reached a somewhat higher peak in 1929 at 340 than the operating company peak of 305 but both were far above the 1920 basing point of 100 for all indexes. The railroad index reached its peak at 211.

For all three classes of stocks this rise within a period of nine years was phenomenal, finding its precedents only during such periods as those of the South Sea Bubble and other frenzied speculations. But what was happening to the holding company index during this same period? We find that it climbed slowly but at an accelerating rate through 1924. If it had continued this rate, it would have reached a peak of about 475 in 1929. But, beginning with the Coolidge boom of 1924, the holding company index assumed a new rate of acceleration and skyrocketed to a peak of 971 in 1929—nearly 10 times its average level of 1920. This peak for the holding company index was nearly three times that for utility operating companies. In other words, the holding company stocks were "kited" to a level three times as high as the level of stocks upon which any real value that they possessed must necessarily rest.

This is the period when legislation should have been enacted for the protection of innocent investors and for the welfare and stability of the industry itself. But during

all this long period, in spite of the efforts of men like the late Senator Thomas J. Walsh and Senator Norris, nothing was done. The way was left clear for the promoters and speculators, without regard to the rights and interests of either consumers or investors. Those who were in power during this period must bear the responsibility for the loss, the suffering, and the destruction of confidence that inevitably followed the breakdown of this tottering financial structure.

When the crash came in 1929, the market values of all classes of stocks fell, but I wish to direct your particular attention to the fact that the indexes for both utility holding company and operating company stocks did not fall as low at any time, in comparison with the 1920 basing point, as the indexes for industrial or railroad stocks. The lowest point reached by the utility operating company index was 106 and for the holding company index 86, both of which were considerably above the low averages for the year 1932 of 71 for industrials and 37 for railroads.

**B**E that as it may and in spite of recent optimistic assurances that the financial outlook for the utilities is not clouded, but, on the other hand, brightened by New Deal utility policies, *The Guaranty Survey*, a monthly published by the Guaranty Trust Company of New York with the hard-boiled and disinterested financial viewpoint of banking interests, gave the following conclusions about the outlook for utility securities:

Recent developments in governmental policy have impaired the outlook for utility earnings, and consequently the ability of the industry to raise new capital, in several ways. The Tennessee Valley Authority has entered into direct competition with the private utility companies in the Southeastern States, and the companies in that area which brought suit against the TVA last month maintain that the execution of the government's program "will necessarily and inevitably destroy all or a substantial part" of their business and property. The annual consumption of electricity in the area within transmission distance of generating plants to be constructed under the TVA plan is equal to only 56 per cent of the quantity of electricity that the execution of the plan will produce.

It is no answer to point out, as spokesmen for the TVA have done, that the companies in that area last year enjoyed the best business in their history and that some of the largest companies led all other companies east of the Rocky Mountains in



Newark Evening News

### STILL HARPING ON IT

average residential consumption of electricity; for the greater part of the TVA program is still in the construction and planning stages and thus far has exerted only a very small fraction of its potential effect on the market for electric power. But the investment position of public utility securities, and consequently the ability of the industry to raise new capital, depends on the outlook for earnings over a long period in the future, not on earnings at present or in the past.

The Tennessee valley project, it must be remembered, is only one part of a vast governmental program for power development that contemplates the construction and operation of generating plants and transmission lines in various parts of the country in competition with existing private utility compa-

nies. These companies are adequately supplying the present demand and stand ready to provide new facilities to supply any additional demand that may appear in the future. The threat of competition from public generating plants, therefore, is not confined to the Tennessee valley area but affects the industry as a whole.

Hardly less important than the threat of government competition is the possibility that the public utility holding companies, which have played a vital part in financing the expansion of the industry, may face destruction under the terms of the Public Utility Holding Company Act. This act, like the TVA, is under attack in the courts and may be held unconstitutional. But, if it is upheld, some of the operating utility companies are likely to face serious prob-

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lems in financing future expansion. The holding companies, by providing the diversification of risk that is essential to high investment rating, have greatly facilitated the financing of plant expansion and the maintenance of a sound financial structure for the industry as a whole. The threat that they may be swept away has been an important factor in impairing the investment position of utility securities and, as long as it continues, will interfere with the efforts of the industry to raise new capital.

Under conditions like these, it is not surprising that the industry's budget for construction expenditures this year shows no increase above the low level of 1935. Not only do investors hesitate to place their funds in an industry subject to so many uncertainties, but the companies themselves are reluctant to make other than immediately essential capital expenditures.

**T**HIS attitude was probably summarized last December by President Willkie of the Commonwealth & Southern Corporation. He said:

If the utility industry knew today that it could reach a reasonable compromise with the administration by which the death sentence of the Wheeler-Rayburn bill could be repealed and the sane regulation of the industry established and the invasion and duplication of its systems directly and indirectly by its own government could be removed, it could double its capital expenditures tomorrow. It could begin a program which would put thousands of men in this country back to work largely in the manufacture of durable goods and construction work, where all economists agree lies the necessity for activity in order to produce the return of economic prosperity.

Of course, it must be fairly stated that there is no unanimity of judgment of the financial prospects for utility investors even among the experts. For example, Roger W. Babson, noted financial and statistical expert, recently issued the following optimistic view on utility shares:

Utility managers are becoming more sensible and hopeful. The perplexing problems of the past three years are gradually being overcome. The storm of popular resentment against the industry is rapidly blowing out.

The skies are clearing, at least temporarily. Holders of power and light securities now have a "breathing spell," although the legality of the Public Utility Holding Company Act still remains to be settled by the Supreme Court.

Of all the controversial questions of the past three years, none has brought forth a more divided opinion than the utility issue. Those who know all the facts feel that the industry did need a spanking. On the other hand, they believe that the administration's humbling process was too harsh and degenerated into persecution. Through it all the investing public have been the innocent sufferers. As investors, they put up the capital to finance the utilities. Now, as taxpayers, they are forced to dig down for additional funds to destroy their original investment.

Most of my friends, even among the utilities, agree that there were rank irregularities in the industry during the boom era. In order to eliminate these malpractices, an elaborate legislative program was directed against the industry. Extravagant publicly financed "yardstick" projects were started. Municipalities were encouraged to go into active competition with private plants. Taxes of all kinds and varieties were slapped on the companies.

The aim apparently was to drive the private concerns out of business and replace them with municipally owned projects. The chief result to date has been a tremendous loss in the value of pyramided power and light securities, although it must be admitted that consumers have secured great rate reductions.

The utility industry as a whole has a wonderful operating record. Employment is 88 per cent of the 1929 level, while average weekly earnings of employees are \$31.45—the fourth highest figures for all industries. The average cost of electricity has steadily declined from 25 cents per kilowatt hour in 1882 to only 4.75 cents today. While the general price level has jumped 50 per cent since the bank holiday, electric rates have come down 15 per cent. Meanwhile, power consumption has set new all-time records, even though the Babson chart is still 5 per cent below normal. This increase is due partly to declining rates, but primarily to lower prices and easier credit-terms on household appliances. Furthermore, we have scarcely tapped the potential market for certain appliances!

With the politicians' inability to keep popular resentment against the industry at white heat, security holders are again taking heart. The total value of all utility stocks has more than doubled in a year. Earnings are steadily picking up despite the 15-20 per cent tax increase since 1932. Most power stocks are selling around 15 times earnings, while the more popular industrials are priced at 20 or more times current net income. With this good earnings picture plus the prospect of justice from the Supreme Court, utility stockholders have now only new taxes and franchise expirations to fear.

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This may be true, but just the same, utility executives are probably wondering whether the utility "reformers" who have been so prominently associated with the present administration have thought up any new ones during the summer to spring on the utilities after the campaign is over.

—E. S. B.

THE FEDERAL GOVERNMENT AND THE PUBLIC UTILITIES. Address by Basil Manly. Institute of Public Affairs, University of Virginia, Charlottesville, Va., July 15, 1936.

POSITION OF THE ELECTRIC POWER INDUSTRY AND BUSINESS RECOVERY. *The Guaranty Survey*. June 29, 1936.

BARSON STATEMENT, *Washington* (D. C.) *Post*. August 6, 1936.

## Coöperatives and the Middle Way

WE might as well make up our minds that we are going to hear a great deal about coöperatives during the forthcoming campaign. President Roosevelt has already dispatched a commission to Sweden and England to study the consumer coöperative movement which is regarded as very successful there. Public interest is heightened by the recent publicity given to new books on the subject, including one by Secretary of Agriculture Wallace, who seems to think that only a strong consumer coöperative movement can save us from ultimate fascism or communism.

The most popular of these volumes and one that is reported to have attracted the attention of President Roosevelt himself is "The Middle Way," by Marquis W. Childs. As the title suggests, Mr. Childs holds up the Swedish coöperative movement as a safe and sane economic course between the extremes of Marxian communism and unregulated capitalism. He tells us that the Swedes are happy, well-fed, and have a balanced budget—a good natured people vehement only in their opposition to extreme Lefts and Rights. Childs prefers to call this economic oasis in Scandinavia "modified capitalism," to the extent that "the profit motive has in many fields been curbed or abolished—subjugated might be a better word." He states:

Capitalism has been controlled in two ways. First, consumers' coöperation has developed slowly during the past four decades until today approximately one third

of all retail trade and 10 per cent of wholesale trade are carried on by coöperatives *without profit*; and the implications of this in low prices and high quality reach out to the entire consuming population. Second, the state has competed so efficiently in many fields that private enterprise has been prevented from establishing extortionate monopolies.

How did it all start? Well, it seems that some years ago a good many Swedes took a violent dislike to commercial monopolies—something like Senator Borah of our own time. Large numbers of concerns began to band together for purposes of group purchases of margarine, chocolate, soap, rubber, sugar, etc., and ultimately they even got into the production end of the business. Most remarkable is the fact that they did not rely on "Federal aid." They had no PWA loan-grant to urge them or push them into the movement. Needless to say, this state of affairs made the private industries wake up and get to work. As a result, both private industry and consumer coöperatives exist side by side without friction other than ordinary commercial competition. And to cap the paradox, the whole set-up is ruled by a monarchy.

Melvyn Lawson, reviewing Mr. Childs' work in *Social Science*, contributes the following view:

Thus, through these two policies has Sweden developed a form of *laissez faire* which Mr. Childs describes as the "hot-house" variety. He points out that in the production of this species, capitalism has been forced to suffer intervention from three sources, namely, from the state, the consumer, and the producer. However, such inter-

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vention has not been invoked with the idea of destroying the system, but with the idea of making it "work." And so intelligently has this program of "interference" been carried out that today Sweden is practically the only country in the world where the so-called "laws" of supply and demand have not been invalidated by the spread of monopoly, and, as a consequence, it is almost the only country in the world in which capitalism has "worked" during the past few decades.

To the unprejudiced observer it would appear that neither of the extreme ways mentioned is the answer to the modern problem of production and distribution. At least neither one is the way if the condition of those countries which are travelling them is any criterion. Russia has had to change her direction considerably during the past few years, and the United States does not appear to be making many encouraging strides toward a healthy recovery. Thus, to many persons in this country, the middle road will undoubtedly present an attractive course, and there are signs which indicate that some already are anxious to embark upon it.

**I**n the Swedish utility field, however, this pretty theory breaks down. Sweden has just about booted private enterprise out of the picture and one wonders over the long run if the same thing won't happen to some of the other industrial fields where now the Swedish state lions and lambs of private enterprise seem to be lying down together so peacefully. For the most part, the Swedish state is the wholesaler of electric power from its great series of generating systems. Distribution systems are practically all municipal with most of them buying power from the state. Railroads, mining, liquor, tobacco, old-age pensions (insurance), radio broadcasting, munitions, telephones, and telegraphs are also "state monopolies." Mr. Childs may call this the Middle Way; but on this side of the ocean, it would probably be called at least slightly Leftish.

Raymond Moley, editorializing in his "Today" magazine, summarizes the coöperative movement in this country as follows:

Coöperative societies of one kind and another are nothing new in this country, but, within the past two years, they have suddenly begun to grow. They now number 11,000. The coöps which sell at retail did a

\$48,000,000 business last year. Farmers' coöperative buying groups, 2,000 of them, which supply members with seed, fertilizer, farm supplies, and implements, are increasing in number and in volume of business. Coöps expansion in the gasoline and oil business has been phenomenal. The first coöps filling station was opened just fifteen years ago; there are 2,000 now scattered from Pennsylvania to California.

The history of farmers' coöperative marketing associations, on the other hand, is a mixture of success and failure. They are 125 years old in this country, and the government has lost millions of dollars in loans trying to help them. The Farm Board lent them much of its \$500,000,000 revolving fund, only to discover that it refused to revolve, so that \$115,000,000 is still frozen. Some 16,000 such marketing associations have fallen by the wayside. There are 8,700 of them left. Last year, they sold \$1,500,000,000 of farm products, which was 22 per cent of all farm income.

It is computed that 3,000,000 farmers belong to one coöperative or another, either buying groups or marketing groups or the 2,000 coöperative farm fire insurance societies. Some 1,250,000 city dwellers likewise belong to coöps. These figures, impressive to us, seem pitiful to the European enthusiast.

**R**etail sales by coöps in the United States amount to about \$1.75 per family, as against \$110 in Great Britain, \$105 in Denmark, and \$85 in Sweden. One out of 6 family heads belong to some kind of coöperative in this country; in Britain, 5 out of 6; and in Sweden, 3 out of 6. Dr. Moley points out that it is ninety-two years since the twenty-eight weavers of Rochdale, England, started the coöps movement, and as yet British coöps have captured only 15 per cent of retail trade. Coöps were discovered by our own war-disillusioned progressives seventeen years ago and hailed as the answer to our economic problems but the movement still lingers and, as Dr. Moley states, it will neither insure us against Left or Right extremes or lead us to them.

*The Indianapolis News* points to one serious social objection to the coöps movement in a capitalistic country. It stated editorially:

The impressive feature of the coöperative plan is that from a small beginning in this country a few years ago it has grown until now one eighth of the farm supplies are



The Evening Star, Washington, D. C.

sold through coöperative stores. Farm organizations took up the plan to gain membership strength and have expanded largely by using their organization staffs to conduct the enterprises, thereby escaping overhead costs necessary in private merchandising. They have driven for tax exemptions to load part of their costs on all the people. And they have won customers by offering a limited number of standardized products, leaving the private merchant to supply the more varied needs of members. In a general way, much of their success is due to a fictitious cost system and skimming the cream of local business.

Consumer coöperatives in Sweden and the British Isles have grown to such an extent that they control production in several lines, such as flour, shoes, and other common commodities. The inevitable effect of customer control is to stimulate producer opposition. This suggests such organizations as the fruit growers, the grain growers and others, in this country, and tends to create a struggle for monopoly. It is strange that consumer coöperatives can violate the monopoly laws without fear of punishment.

The deduction is that monopolies are bad until their profits are widely distributed among consumer-owners. Thus the real danger is that the coöperatives will destroy free competition, do away with its benefits, and, when the collapse comes, leave the country weak in commerce and industry.

**I**N the utility field, the coöperative movement will cause least worry of all—either to private entrepreneurs or outright public ownership advocates. In the past we have had a fair number of small mutual telephone associations (often built by farmer-members) that we called coöperatives. Their service was frequently sub-standard and as time went on most of them either folded up or expanded into full-blown commercial enterprises. Some still linger but the Census Bureau figures for telephone operations under \$10,000 a year tell a definite tale of the diminishing

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trend. It is not unlikely that some of the *quasi* coöperative groups now going in for rural electrification will follow the same trend when the strong support of the Federal government is withdrawn and they are left to shift for themselves. If history is any teacher, they will eventually, for the most part, be gobbled up by central stations whether the latter are publicly or privately operated.

The explanation is easy. Public utility service is inherently monopolistic within territorial areas. It is becoming more so with the development in the art of gas and electric transmission and the economies of area-wide operations. Whether these monopolies should be operated by the government or private enterprises may be a debatable question, but it is a safe bet that at least the coöperatives will never get far with them.

Speaking of rural electric coöperatives, a recent article by Allen Moore of the legal division of the Rural Electrification Administration gives some interesting information about their relation to state commission regulation. Six states, it appears, have recently enacted laws authorizing the promotion of non-profit membership coöperatives. In Indiana and Virginia, these are expressly subject to the state commissions. In Tennessee they are expressly exempted from such jurisdiction. Commission jurisdiction does not exist in Mississippi over electric utilities anyhow—and in Alabama and North Carolina, the jurisdiction of the commissions over these coöperatives is limited.

**T**URNING to the general law on the subject, Mr. Moore stated:

Coöperatives may or may not be incorporated. They may be stock or membership corporations. Service normally is rendered only to members or if to nonmembers only incidentally. Coöperatives usually are operated on a "cost of service" basis and net earnings, if any, are distributed as patronage dividends, or in limited amounts, or applied to the reduction of costs or rates. Democratic control, that is, one member, one vote, is almost universal.

A study of the cases in point shows that the ultimate question of whether a company

is a public utility always turns upon whether there has been a dedication of the property of the corporation to a public use. Coöperatives may or may not do this. If their formation and operation results in a holding out to render service to the public generally they are subject to commission control. In the absence of such a dedication to the public use, decisions in California, Illinois, Missouri, Nebraska, Ohio, Pennsylvania, and Wisconsin indicate that coöperatives serving only their own members are not subject to the general jurisdiction of their respective commissions. No contrary cases have been found in other jurisdictions. Formal and informal opinions of commissions and attorneys general have conformed to the rule stated above.

The problem may not be as simple as Mr. Moore's study might suggest. There is the question of whether so-called "membership" is open to anyone who wants service. If so, such an organization would be a public utility under the rule laid down by the Illinois commission in *State P. U. C. ex rel. Pike County Teleph. Co. v. Noble*, P.U.R. 1917A, 520, and repeatedly followed in other jurisdictions. Then there is the question of "incidental service" to non-members. The Maine Supreme Court held in *Gilman v. Somerset Farmers Co-operative Teleph. Co.* 129 Me. 243, P.U.R.1930E, 362, that mere maintenance of a public pay station was sufficient to put an alleged coöperative telephone company into the class of "public utility." Another case even held that wires crossing a public highway were sufficient to do the trick.

**M**R. Moore concedes that there is no reason why rural electric coöperatives should not be subject to regulation as to safety standard securities. The article concludes with an interesting interpretation of the special character of regulation which the commissions have developed with respect to coöperatives—where they are subject to regulation at all:

In states where coöperatives are subjected to certain types of regulation it has been the general practice of regulatory bodies to regard them as constituting a special category and requiring a method of treatment that recognizes their special problem. They do not constitute an agency seeking a monopoly

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for the purpose of serving the public at a profit. They constitute the consumers to be served. This identity of interest between operating agency and consumer eliminates most of the reasons underlying the necessity for public regulation. Even though commissions are bound by statute to exercise a certain measure of regulation over the right to do business, the issuance of securities, and rates, it has been the general practice not to subject coöperatives to expensive and burdensome regulation. Their ability to exist and to promote the sound public policy represented by comprehensive covering of territory requires the reduction of all costs to a minimum. Just as the tax laws of most states and the Federal government have placed coöperatives in a special category, likewise public service commissions, even though regulation is imposed by statute, have adapted the regulation to the economies which coöperatives must practice.

There may be good reason for making fish of commercial utilities and fowl of the coöperatives, with respect to proper accounting, depreciation, main-

tenance, service standards, etc., but they are not entirely obvious.

A more detailed study of the cases underlying Mr. Moore's conclusions as to special regulatory treatment for coöperatives would prove to be a very interesting contribution to regulatory literature.

—F. X. W.

SWEDEN—THE MIDDLE WAY. By Marquis W. Childs. Yale University Press, New Haven, Connecticut. 170 pages. \$2.50.

MAKING CAPITALISM WORK. Review of "Sweden—The Middle Way," by F. Melvyn Lawson. *Social Science*. Summer, 1936.

COÖPERATIVES AGAIN. Raymond Moley. *Today*. July 25, 1936.

COÖPERATIVES. *The Indianapolis News*. July 15, 1936.

COMMISSION CONTROL OF COÖPERATIVES, LEGAL ASPECTS. By Allen Moore. *Rural Electrification News*. July, 1936.

## Homestead Tax Exemption and the Utilities

AT the very time when governmental spending for relief and other purposes is placing unprecedented pressure on tax collection, there has lately arisen a widespread movement to limit taxation by law or, in other words, to cut down the available sources of tax revenue. Aside from the inevitably disastrous consequences of such burning of the public treasury candle at both ends, tax limitation necessarily places those not exempted in the unenviable position of having to make up the taxes formerly supplied by those who are exempted, plus the augmented burden of higher taxes generally. Needless to say, this means public utilities.

Some idea of the considerable portion of gross revenue paid by public utilities in the United States can be obtained from the recent report by the Federal Power Commission on comparative rates of publicly and privately owned electric utilities. The press release accompanying this report stated in part:

The total taxes paid by the reporting private electric utilities in 1933 amounted to

\$206,988,870, which was 12.5 per cent of their total base revenues for that year. In 1934 the total taxes paid by those utilities increased to \$239,773,260 and constituted 14.1 per cent of the total base revenues.

In 1933 Federal taxes constituted 27.9 per cent of the total taxes paid by private utilities, or 3.5 per cent of the total base revenues. In the same year state and local taxes comprised 72.1 per cent of the total taxes paid by these utilities, or 9 per cent of the total base revenues.

PROBABLY the most current form of tax limitation now being agitated is homestead exemption. This usually provides for a removal from the tax rolls of all homesteads having a value below a certain specified maximum. Editor Howard P. Jones of the *National Municipal Review*, writing in that periodical, tells us:

A study is needed of the effect of such laws in states where the policy has been tried. Superficial examination would lead to the conclusion that such exemption was a most unsound fiscal policy. In St. Petersburg, Florida, for example, more than \$15,000,000 worth of property was removed from a total tax roll of approximately \$67,000,000 through the operation of the

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Florida homestead exemption law, according to a survey of St. Petersburg recently completed by the Consultant Service of the National Municipal League. An interesting survey of the probable effects of homestead exemption, issued not long ago by the Kansas City Civic Research Institute, revealed that in Missouri cities would lose from 6 to 70 per cent of their total city tax revenues, the larger cities being less affected than the smaller cities.

**A**SIDE from the probability that large residential property owners would take advantage of such a law by "selling" their homes to individual families on long-term contracts, Mr. Jones raised the question of whether such subsidization of home ownership unrelated to need is sound. He states:

If the line were drawn at \$5,000, for example, a man owning a home valued at slightly under \$5,000, but owning an automobile, would escape scot-free, whereas the man who decided to have a better home instead of buying a car would have to pay. In the last analysis, if no replacement taxes are established, it shifts the burden to the remaining property owners and to the renters who as a class are even less prosperous than the modest home owners. If replacement taxes are established, the small home owner may be worse off than before, depending upon the type of replacement tax. Authorities are fairly well agreed, for example, that a sales tax would cost the small home owner more than the real estate tax it would replace.

Up to the present time, four states have adopted legislation exempting homesteads from ad valorem taxation in varying amounts. Texas, by constitutional amendment, exempts homesteads assessed below \$3,000; Mississippi exempts below \$2,500, and beneath a 160-acre limit—(both for state taxes only). Louisiana exempts homesteads assessed beneath \$2,000 from all state, parish, and special taxes. Florida exempts homesteads assessed at less than \$5,000 from all taxes. Four other states: Oklahoma, Utah, North Carolina, and New Mexico, have pending or have ratified legislation for similar tax limitation. Minnesota and West Virginia allow preferential classification of homestead property for tax purposes, while four other states have special exemptions for homesteads of service veterans.

The above information was obtained from a report by Professor C. H. Knight of the University of Alabama to the Alabama legislature on the effect of proposed homestead exemption on assessed value and revenue receipts in various units of that state. Thus it will be seen that this particular "wolf in sheep's clothing" is threatening to widen his scope of operation.

**S**PACE unfortunately forbids the reproduction here of the details of Professor Knight's findings as to the effect of a \$2,000 gross (\$1,200 net) homestead exemption on the revenues of the state, counties, and several municipalities of Alabama, but here is a summarizing paragraph from the text:

It will be noted that the per cent of loss is shown based on the valuation of real estate and improvements and also the per cent of loss based on total valuation. These percentages vary with the amount of valuation of personal property, motor vehicles, public utilities, and penalties listed for each county. In reducing the loss to the various units to dollar figures of revenue, only the per cent to total valuation can be used. This figure varies widely in comparing the counties. The highest percentages of loss show 37.73 per cent in DeKalb and 35.17 per cent in Cullman counties whereas the lowest occurs in Elmore with only a 6.67 per cent net loss. The loss to Elmore county based on valuation of real estate and improvements is 36.17 per cent but the proportionately high valuation of its public utilities (\$16,463,297) reduces the net loss in valuation to 6.67 per cent. A percentage of net loss to the state as a whole is shown (15.52) but this is of questionable value except in showing the net loss to the state for state tax purposes only. Three of our most populous and wealthy counties, Jefferson, Montgomery, and Mobile, contain approximately 40 per cent of the total assessed valuation of the state and each of these quite naturally shows a relatively small per cent of loss on total valuation. This, of course, would tend to reduce the state average percentage.

In other words, the exemption would hit hardest the very counties where revenues are most needed—the poorer counties, while conversely, the richer counties would lose comparatively less. Another matter for consideration is the fact that tax revenues are already inadequate in a number of counties and tax

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deficits increasing. On this point, Professor Knight states:

Fifty-one of the counties incurred a current operating deficit for the year 1934 indicating that the present general fund revenues are inadequate. This situation has been caused, in most instances, by a continuously decreasing amount of total assessed value. The decrease since 1930 has amounted to as much as 37 per cent in some counties, the average for the state being around 22 per cent. In addition, in the northern section of the state the Federal government through its Tennessee Valley Authority activities is taking many thousand acres of land from the assessment rolls. Limestone county alone is estimated to lose 52,000 acres of the rich Tennessee valley land which will remove approximately \$1,000,000 from the assessed values. Lauderdale county also will lose much land which together with equipment valuation loss is estimated to total \$1,000,000. Madison county is estimated to lose approximately \$300,000 while in Morgan the loss will probably be \$700,000.

It would be well, as *National Municipal Review* suggests, if other states besides Alabama would look before they leap into the financial slough of homestead exemption by having local studies made comparable to the excellent report of Professor Knight.

The country's tax burden, including levies to be made under the present Social Security Act, is destined to double by 1950 and unless national income expands from the present 50 billion dollars to at least 90 billion dollars, the United States is faced with the possibility of another devaluation within the next ten years.

This is the conclusion of Young & Ottley, Inc., as analyzed in "Merchants of Debt," a comprehensive survey of the changing character of American banking and its effect on securities, just published in book form by that organization. W. von Tresckow, a member of the firm's staff, is author of the work.

In its discussion of national income, taxation, and devaluation, the study points out that at the present time total tax collections are more than 9 billion dollars as against 1.6 billion dollars around the beginning of the century. This means that out of a national income that has increased only about three

times during this period, more than six times as much must be paid in taxes. Mr. von Tresckow states:

In 1932 when taxation had reached more than 20 per cent of national income taxes and the debt burden grew so onerous that a devaluation of the currency proved politically expedient. Examining the record of France, Germany, and Great Britain, as related to taxation and national income, it is found that approximately the same thing has been true. A popular demand for devaluation has arisen—or at least devaluation has become expedient—when taxation exceeded 20-23 per cent of the national income.

Analyzing the curve of taxation in the United States for the past fifteen years, it appears that taxes may reach an annual total of 12 billion dollars to 14 billion dollars by 1950 without the Social Security taxes. Including Social Security taxes, according to the present law, tax collections may reach 17 billion dollars to 19 billion dollars per year by 1950. This would practically mean a doubling of the national tax burden in the space of fourteen years.

According to past experience, this huge burden can be borne without the threat of a strong popular demand for devaluation only if national income increases from the present approximate 50 billion dollars annually to some 80 billion dollars or 90 billion dollars by 1950. However, to maintain a comfortable margin for a possible recession of income, due to recurring depressions, national income should increase at a rate that would reach 100 billion dollars annually by 1950.

A NATIONAL income of 100 billion dollars would mean an increase of more than 100 per cent over the low point of 1932 and an increase of almost 20 per cent over the 83 billion dollars of 1929.

—E. S. B.

ANOTHER WOLF IN SHEEP'S CLOTHING? Editorial comment. *National Municipal Review*. July, 1936.

PRESS RELEASE. Federal Power Commission. Release No. 99, July 12, 1936.

THE EFFECT OF THE PROPOSED HOMESTEAD EXEMPTION. By C. H. Knight. Mimeographed Series No. 6. Published by Bureau of Business Research, University of Alabama, University, Ala.

MERCHANTS OF DEBT. By W. von Tresckow. Young & Ottley, Inc. New York.

# The Latest Utility Rulings

## Gross Revenue Basis for Management Fee Disapproved

A MANAGEMENT fee determined by the percentage method of making charges to operating divisions was disapproved by the North Dakota commission in fixing rates. The commission could see no relation between service rendered and gross revenue.

It had been shown that the management corporation through the percentage method of charging received a substantially larger income than all its costs, which resulted in a profit of at least a minimum of 34 per cent of each dollar charged. The commission said that when service is made available to a division of a power company by a management corporation, that service should be known and the cost of the same to the utility known.

The evidence indicated that on the basis of kilowatt hours sold the operating expenses of the division were higher than in three of the largest electric utilities not under the management corporation operating in the state. The commission said that this fact indicated that the management service did not reflect the operating results that should be expected of such a management.

Evidence had been introduced as to the value of such service and that the management corporation rendered to the utility a highly technical and specialized service. The commission expressed the view that when in the conduct of an electric utility about the same conditions prevailed one with the other

and when North Dakota electric utilities, not so fortunately situated as the utility at bar, showed operating results more favorable, it was indicative that the management service had not produced the results for which it was created, and the management or supervision expense as charged was an excessive burden upon the consumer. The commission eliminated from operating expense the percentage charge.

The commission also disallowed legal retainers but allowed charges for legal services. Retainers to legal firms located without the state were not considered as a reasonable charge.

The commission, in disallowing any specific amount for going value in addition to considering going concern with business attached, in its findings of fair value, said:

The common definition of "going value" is "that amount by which the value of a utility plant in operation, with customers and an established revenue exceeds the value of a similar plant with no customers or "no revenue." It has also been described as the "lag in business." Whatever it is and whoever started it makes little difference. If a public utility is entitled to some compensation for the lag in business or going concern of any sort, that liability or deficiency should have been retired the first time a surplus was ever earned and if it was not done the stockholders should hold the management responsible and not the regulatory commission.

*Re Northern States Power Co. (Case No. 3396.)*



## Unproven Management Charges Which Are Allowed by Bankruptcy Court

THE Missouri commission in an investigation of rates of the Mis-

souri Public Service Company, which is undergoing reorganization in the Fed-

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eral court pursuant to § 77-B of the Bankruptcy Law, allowed as an operating expense a management fee paid to the Middle West Utilities Company, although the company admitted that it was practically impossible to show the cost of rendering service because the Middle West Utilities Company rendered similar service to over 100 utility corporations in perhaps twenty states.

Evidence was introduced by the company to show the nature of the services rendered and the estimated measurable savings accruing to the company. The commission declared:

The commission has not in the past allowed charges of this nature unless the cost of the service to the holding company was shown, and that the holding company made no profit on the rendition of this service. However, the fact that the court allowed the payments prompts us to allow this fee. The amount should, however, be divided between the various departments, including the coal and ice departments. No basis for division was suggested. We are of the opinion, however, that an apportionment on the basis of operating expenses, exclusive of the annual depreciation requirement, is reasonable, and will not result in burdening one department at the expense of another department.

The commission decided that the property should not be segregated between communities. Earnings as a whole were found not to be more than

a fair return upon the property used and useful in serving the public. The rate department of the commission had found that the company was instituting a program of standardizing the rates over its system in order to obtain uniform rates in contiguous territory. The character of the service furnished in the various towns was said to be similar and there was said to be no evidence of any special conditions existing in these towns calling for different rates. The commission thought it inadvisable, therefore, to single out certain communities and test the rates in those communities.

Incidentally, said the commission, it should look at the practicability of such a step. The audit did not show the expenses by towns, nor did the commission have sufficient data relative to the demands by the various towns to make a proper allocation of common generating and transmission property.

The commission determined the amount fairly indicating original cost and suggested that the company's fixed capital account be adjusted to reflect this original investment, thus excluding the arbitrary write-up by reason of appraisals. *Public Service Commission of Missouri v. Missouri Public Service Co.* (Case No. 7806).



### Request for Service Extensions Granted Notwithstanding Territorial Agreement

**I**NTO territory between the areas served by the Wisconsin Gas and Electric Company and the Wisconsin Power and Light Company, the former utility was ordered by the Wisconsin commission to extend its lines at the request of prospective customers although a territorial agreement between the two companies gave the territory to the Wisconsin Power and Light Company.

Neither company at the time was serving this territory and therefore, in the opinion of the commission, there was no question of "ruinous competition" as there was "nothing to compete over but a vacuum."

The commission asserted its power to order a company to go into adjacent territory, within reasonable limits, to furnish service, and then stated the issue as follows:

If the commission has the power to order a given utility to serve a certain group of customers, and that order otherwise would be reasonable, can two utilities get together and by building respective Chinese walls around each other, *destroy the power of this commission?* Particularly, can they do this, when the existence to date of these two Chinese walls has left in between a "no-man's land" in which neither utility and none other is serving?

The reason for ordering the Wisconsin

## THE LATEST UTILITY RULINGS

sin Gas and Electric Company to make the extension rather than the Wisconsin Power and Light Company was because the rates of the former were low-

er and the applicants had petitioned for service from that company. *Behnke v. Wisconsin Gas & Electric Co.* (2-U-996).



### Telephone Subscribers in Border-line Territory

COMPLAINT was made to the Wisconsin commission by subscribers of the Burlington, Brighton & Wheatland Telephone Company that their application to the Wisconsin Telephone Company for service from its Burlington exchange had been refused. The commission worked out a plan by which these subscribers, who desired direct connection with Burlington, would be placed in exactly the same status as to rates and service as the rural telephone subscribers of the Wisconsin Telephone Company.

In approaching the problem the commission said that if it directed the Wisconsin Telephone Company to extend to these applicants, it would result in the loss of more subscribers of the Wheatland Company and probably the eventual abandonment of a not inconsiderable number of miles of line. On the other hand, there was said to be no question but that the subscribers of the Wheatland Company living within a reasonably short distance of the city of Burlington were entitled to more direct service with the people of Burlington than they were getting. Rural rates of the Wheatland Company were \$1.25 net

per month, while those of the Wisconsin Company were \$2 per month. A toll rate of 3 cents per call had been established between the exchanges. The plan outlined by the commission was as follows:

The subscribers of the Wheatland Company within a radius of 3½ miles from the city limits of Burlington will be given the option of having direct connection with the Wisconsin Telephone Company in Burlington under a switching arrangement whereby the Wisconsin Telephone Company will establish a rate of 62½ cents per station per month. Those subscribers of the Wheatland Company connected to the Burlington exchange of the Wisconsin Company will pay for such service the same rural rate which the rural subscribers of the Wisconsin Company are now paying, namely \$2.25 gross or \$2 net per month. Further, there will be no free interchange of service between the Wheatland Company subscribers connected to the Wheatland exchange and those connected to the Burlington exchange of the Wisconsin Company, and the rate of 3 cents per call now effective between the Wheatland subscribers and the Burlington exchange of the Wisconsin Company will be discontinued for those subscribers who become connected with the Burlington exchange of the Wisconsin Company.

*Re Wisconsin Telephone Co.* (2-U-1004).



### Delay in Meter Installation to Avoid Combined Billing Does Not Excuse Payment

COMPLAINT was made to the New Jersey commission against a bill for electric current furnished to two houses owned by a single owner and occupied by tenants. There was no dispute as to the correctness of the bill but the customer contended that she had applied for installation of another meter so that current consumed in each house could be separately metered and that be-

cause of a delay in installation she had been unable to collect from her tenants their estimated portions of the total bill for service.

The complaint was dismissed upon a showing that installation of the additional meter required an extension of the distribution system which involved the installation of another pole in front of the customer's property. It was tes-

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tified that the customer had not signed the pole consent for the desired installation until a few days preceding the time that the pole was set. There was held

to be no undue delay on the part of the electric utility in making the installation. *Gutentag v. Central Power & Light Co.*



### Auxiliary and Standby Service in Excess of Amount Contracted For

A COMPLAINT by a power customer against an electric utility with respect to the application of an auxiliary and standby service rule was dismissed by the New Jersey board, where, if the customer's interpretation of the schedule were correct, it would permit the customer to receive a greater quantity of service than that actually contracted for and used. Such a situation, it was said, would be discriminatory.

The tariff provision called for a monthly charge the equivalent of \$2 per kilovolt ampere of the full rated capacity of transformers or similar apparatus or connection used in supplying service. The customer contended that it was entitled to service through a transformer installed to supply only its premises and that the amount of the

standby charge should be determined by the rated capacity of the transformer which the customer made application for.

The utility company submitted that it was the usual practice to service a group of customers through a single transformer and contended that it might properly install a demand limiting device to limit the amount of standby service to the demand which the particular customer had contracted for. It was testified that if an individual transformer were installed without a demand limiting device the customer would be able to receive the benefit of the overload which the transformer would carry without additional cost. *John Huss Co. Inc. v. Jersey Central Power & Light Co.*



### Unowned Property Excluded from Rate Base

PART of a water system not owned by the utility company cannot properly be included in the rate base, according to the Pennsylvania commission, even though the utility maintains it. Said the commission:

In its brief in the instant proceeding, respondent argues that this line is operated and maintained by respondent and that, upon the expiration of its useful life, respondent will be required to replace it. If title to this line had ever passed to respondent, even as a gift, we would, of course, be bound to include it as respondent's property. However, the mere use of this line, the property of another, to serve some of respondent's patrons, does not constitute ownership, even though respondent pays for the maintenance of the line. It is no more proper to include such a line as this than, for example, to include a service line between the main and

curb built by the consumer, who retains title to it. Until such time as respondent secures title to this line, or replaces it with another line at the end of its useful life, we cannot include it as an element of fair value.

This ruling was made in a water rate investigation in which the commission also refused to allow as part of the rate base any separate amount for going concern value. The commission said that it had valued the property on the base of reproduction cost less depreciation, assuming that the property was a going concern.

The distinction between working capital to be allowed in the rate base of a public utility and the usual conception of working capital for accounting purposes was explained as follows:

## THE LATEST UTILITY RULINGS

We define working capital as that sum which would be required for respondent to meet its current requirements for operation and maintenance until such time as charges to its patrons for service are paid into its treasury. Such sum is the measure of money required to be provided by the investor for this item—and is not to be confused with

the usual accounting definition of working capital, that is, the excess of current assets over current liabilities.

*L. B. Herr, Jr. v. Lancaster Suburban Water Co. (Complaint Docket Nos. 8530, 8876).*



### Low Commutation Fares to Encourage Patronage

THE New York commission held that proposed increases in commutation fares of the Long Island Railroad Company had not been justified, and an order was entered directing cancellation of filed schedules intended to effect the increase. Commissioner Lunn, in discussing the effect of commutation fares, said:

Business in general has suffered; many industrial establishments have been unable to maintain operating costs. A railroad which enjoys fat years must expect to endure lean years. Petitioner argues that there is no hope for any increased earnings on noncommuter traffic. This is an assumption. Neither the railroad nor anyone else can arrive at a conclusion in advance of experience as to what effect the lower regular fares are to show in the future. To conclude in advance that the lower regular fares will not bring additional revenue to the railroad is merely to contend without supporting facts that the Interstate Commerce Commission erred when it ordered reduced regular fares. Business recovery is steadily improving. It is natural to expect that with improvement of business now on the way increased earnings will result for petitioner.

Chairman Maltbie, in a concurring opinion, said that in the figures presented to the commission it had frequently been assumed that the amount of traffic would remain the same whether rates

were increased or decreased. This, he said, is contrary to the general economic law that when rates are decreased the amount of consumption or use increases, and when rates are increased the amount of consumption or use decreases, other factors remaining unchanged.

After discussing the experience of railroads in reducing fares, Chairman Maltbie criticized the company for first offering special inducements to build up commutation traffic on the "increment cost" theory and then, after inducing a considerable population to settle on Long Island, applying the "relative use" theory. He continued in the following words:

Whatever may be the legal rights of a railroad company which follows such methods, it cannot expect that the public will consider that they have been fairly dealt with. The residents of Long Island are apt to think that the railroad company considers that it has them securely hooked and that as they cannot escape, it is somewhat indifferent to their protests. It hardly seems fair that a corporation which has built up traffic upon the basis of the increment cost method should, after the traffic has been built up, resort to the use principle as a justifiable means of increasing the rates.

*Re Long Island Railroad Co. (Case No. 8626).*



### Commission Review of Municipal Action

THE Arkansas Department of Public Utilities held that its review of a regulatory ordinance of a municipality is not judicial but legislative although the word "appeal" is used in the statute

authorizing the department to pass upon the municipality's action. Accordingly the department overruled a motion by a city to dismiss a telephone company's complaint against a city ordinance on

## PUBLIC UTILITIES FORTNIGHTLY

the ground that the statute providing for such review was void because it attempted to vest judicial power in the department.

The Arkansas legislature in 1935 created the department and with certain exceptions gave it full and complete regulatory powers and jurisdiction over all public utilities operating in the state. It gave municipalities the same powers and jurisdiction over their local utilities. Moreover, the statute provided that in all matters of which original jurisdiction was given to both the department and to the municipality, such jurisdiction should be concurrent, and the jurisdiction of any particular matter granted to either agency should be suspended if, and so long as, the other agency had the same matter under investigation.

An additional provision authorized an appeal to the department from the action of local authorities, whereupon the department should proceed with the investigation, hearing, and determination of the matters complained of "with the same procedure that it would dispose of any other complaint made to it and with like effect."

The department, it was held, is not confined to a review of the record made before the council or local commission with a view to ascertaining whether

there is sufficient evidence to support the ordinance but it must hold a hearing for the purpose of determining the reasonableness of the rule adopted by the city.

Manifestly, it was said, the department proceeds as in an original action. It must enter such an order as in its judgment the ordinance should have provided for. If the department were acting judicially, the only order that could be entered would be one upholding the ordinance or holding that it was void.

The ordinance complained of attempted to abrogate a rule limiting the use of customer telephone service, as distinguished from public or semi-public service.

The rule was suspended pending investigation. The department expressed the belief that such a rule, if unfair in the municipality involved, would be unfair in all other cities in which the company operated and that there was no reason why the company should have one rule in one city and another rule in some other city. Therefore, the scope of the investigation was broadened to include all exchanges of the company in the state to the end that uniformity might be had. *Southwestern Bell Telephone Co. v. City of Fort Smith* (No. 125).



### Other Important Rulings

THE supreme court of Minnesota held that freight transportation by trucks between the twin cities and Superior, Wis., was interstate transportation without any elements of subterfuge on the part of the carrier; and the court held that the state railroad and warehouse commission, prior to July 1, 1933, when Chap. 170, Laws 1933, went into effect, had no power or authority to issue a so-called "cease and desist" order. *Murphy Motor Freight Lines, Inc. et al. v. Weiss* (267 N. W. 495).

The supreme court of Michigan held that where a commission had determined that lower rates should be established in the future but denied reparation and prior shipment, no appeal was authorized from the negative order denying reparation.

Such an order, it was said, is not within the language of the statute providing for appeals taken from commission orders. *Sparta Foundry Co. v. Michigan Public Utilities Commission* (267 N. W. 736).

NOTE.—The cases above referred to, where decided by courts or regulatory commissions, will be published in full or abstracted in *Public Utilities Reports*.

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COMPRISING THE DECISIONS, ORDERS, AND  
RECOMMENDATIONS OF COURTS AND COMMISSIONS

VOLUME 14 P.U.R.(N.S.)

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City of Birmingham  
v.  
Southern Bell Telephone & Telegraph  
Company

[Docket No. 6716.]

*Reparation, § 47 — Res adjudicata — Points not decided.*

1. A petitioner asking reparation in a proceeding against rates is not barred from seeking reparation after the entry of a Commission order fixing lower rates if such order does not mention reparation, pass upon it in any way, or make any determination with respect to it, p. 231.

*Reparation, § 48 — Parties — Municipalities.*

2. A municipal corporation having the right to file a complaint against rates may present the issue of reparation and is entitled to have it passed upon by the Commission if the municipal corporation considers that it or its citizens are entitled to reparation, p. 231.

*Reparation, § 44 — Procedure — Claims of individuals — Proof.*

3. A specific award of a definite amount to each claimant for reparation cannot be made until every such claimant has made proof before the Commission that he has paid or borne charges assessed within the period during which the Commission has found rates to have been unjust and unreasonable, even if the Commission should find that those who had paid rates during the pendency of a rate proceeding are entitled to reparation; and the mere general finding that reparation should be awarded against rates previously in effect is not enough until it has been supplemented by such proof by the individual subscriber, p. 231.

*Reparation, § 21 — Proof of damage — Effect of rate concession — Municipality.*

4. A municipality which has, during the pendency of an investigation on complaint against rates, received special concessions so that the rates paid by it have been less than the rates finally determined to be reasonable, is unable to prove damages as a basis for a reparation award, p. 231.

*Reparation, § 48 — Procedure — Parties — Complaint by municipality.*

5. A municipality has a right to have the issue of reparation determined, even though it could not recover any damages for the municipal corporation itself, because a municipal corporation is one of the bodies which is entitled to present these issues before the Commission and have them determined either in behalf of the municipal corporation itself or its citizens, p. 231.

*Reparation, § 21 — Proof of damage.*

6. A claimant must prove that he has paid and borne rates found to be unreasonable to entitle him to an award of damages on a claim for reparation, p. 231.

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### *Procedure, § 36 — Stare decisis — Supreme Court decision.*

7. A decision of the United States Supreme Court as to the power of the Interstate Commerce Commission to award reparation under the Interstate Commerce Act is decisive on the question of the power of a state Commission to award reparation under a state law the provisions of which in connection with reparation are not substantially different in legal substance and effect than the Federal act, in the absence of a decision by the state supreme court, p. 233.

### *Reparation, § 11 — Powers of Commission — Rates fixed by Commission as defense.*

8. The Commission cannot properly award reparation as against rates which have been in effect because of a mandatory order of the Commission requiring such rates to be made effective, after due notice and hearing, and resulting from a proceeding had by the Commission for the purpose of inquiring into the reasonableness of previously existing rates and determining what would be just and reasonable rates to apply in the future, p. 233.

[June 25, 1936.]

**P**ETITION for reparation on the ground that telephone rates were excessive; denied.

**APPEARANCES:** Horace C. Wilkinson, Attorney, for city of Birmingham; Steiner, Crum & Weil, Attorneys, Stokely, Scrivner, Dominick & Smith, Attorneys, M. H. Collier, John T. Goree, and E. D. Smith, Attorneys, for Southern Bell Tel. & Tel. Co.

### *Statement of the Case*

By the COMMISSION: The matter dealt with in this report and order is the claim of the city of Birmingham, on its own behalf and on behalf of the subscribers of the Southern Bell Telephone & Telegraph Company served through the Birmingham exchange, for reparation, that is, for a refund to the city and to all other subscribers served by the defendant's Birmingham exchange of the difference between the rates for exchange service actually charged to such claimants between April 1, 1935, and May 1, 1936, and the rates which became effective

on May 1, 1936, by virtue of the Commission's order issued on April 2, 1936, which reduced the rates for such exchange service theretofore in effect during the period of time above named.

The city of Birmingham will be referred to herein as the "claimant." The Southern Bell Telephone & Telegraph Company will be referred to herein as the "defendant."

On March 29, 1935, the claimant filed its complaint against the alleged unjust and unreasonable rates charged subscribers to defendant's Birmingham exchange. Said complaint is designated as the Commission's Docket 6716.

While said complaint was pending on May 29, 1935, the complainant therein, city of Birmingham, filed an amendment of the complaint, alleging that by reason of the defendant's having charged its said subscribers to the Birmingham exchange an amount

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greatly in excess of just and reasonable rates, the defendant was due to account to such subscribers and to refund to them 40 per cent of all sums collected by defendant for such service, subsequent to April 1, 1935. The original complaint was also amended by amending the prayer thereof to ask that upon final hearing, the defendant be ordered to refund to its said subscribers in the city of Birmingham 40 per cent of all sums collected by it subsequent to April 1, 1935, for such service.

Prior to the filing of the complaint of city of Birmingham against defendant's rates, on the 26th day of March, 1935, the Commission had issued its order of investigation of all of defendant's rates for any intrastate services performed by defendant within the state of Alabama. Under this order of investigation, the Commission put in issue the defendant's service and all of its rates and charges for intrastate service performed by it in Alabama. This proceeding is styled as the Commission's Docket 6477 (8 P.U.R.(N.S.) 161).

The Alabama Rate Association had theretofore filed a complaint against the defendant's rates for its intrastate service in Alabama but had requested the complaint be not set down until the complainant gave notice to the Commission to do so. This complaint was styled Commission's Docket 6714.

On March 29, 1935, the state of Alabama by its attorney general filed a complaint against the defendant's rates and charges for any services performed by defendant within the state of Alabama. This is styled as the Commission's Docket 6715.

On April 2, 1935, the claimant filed

a petition in the said Docket 6716 asking that the Commission make an order requiring the defendant to hold in trust and retain within the jurisdiction of the Commission such sums as defendant might collect subsequent to April 1, 1935, for exchange service to its subscribers served by the Birmingham exchange which were in excess of a fair and reasonable charge for such service. In said petition, the claimant alleged that the existing rates were excessive and should be reduced in excess of 40 per cent of the sums then being charged. This petition may be referred to herein as "petition to impound."

On April 16, 1935, defendant filed its answer to the claimant's said petition to impound, and among other defenses thereto, alleged that the Commission is without authority to make the order prayed for.

On June 6, 1935, the Commission issued its order in Docket 6716 denying claimant's petition to impound upon the ground that the Commission was without authority of law to make and enter such order. In this order the Commission did not pass upon the claim for reparation.

The Commission's said order of investigation of the rates and charges of the defendant, and the complaints of Alabama Rate Association, city of Birmingham, and state of Alabama, above referred to, were set down to be heard and were heard upon a common record. The hearings lasted over a period of several months.

During the hearing, the Commission indicated (Transcript, pages 1997-2000) it would pass upon the reasonableness of defendant's rates first, reserving any decision as to rep-

## ALABAMA PUBLIC SERVICE COMMISSION

aration until after the Commission had reached its conclusion upon the reasonableness of the rates.

On the 2nd day of April, 1936, the Commission issued its order reducing the rates of the defendant's exchange service within many of its exchanges in this state as set out in such order. The order made a reduction in the rates of subscribers for exchange service in the Birmingham exchange. The effect of such order was estimated to be a reduction of \$250,000 per annum for the state as a whole and approximately \$130,000 per annum for the city of Birmingham.

The Commission's order of April 2, 1936, made no finding whatever as to reparation and made no reference to the claim of the city of Birmingham for reparation.

On April 21, 1936, the city of Birmingham filed in Docket 6716 a claim for reparations and prayed an order of the Commission requiring the defendant to refund to the city of Birmingham and to defendant's patrons in the city of Birmingham, all sums paid by them for exchange service since March 29, 1935, that were in excess of the rates established by the Commission's order of April 2, 1936. The defendant was given notice of this claim and the matter was set down to be heard on May 19, 1936.

Hearing was had by the Commission on the claim for reparation on May 19, 1936. At the hearing, the defendant filed its answer to the petition for reparation.

The defendant sets up in its answer the following defenses to the claim for reparation, namely:

1. The rates charged by this respondent during the time complained

of in said motion or petition were rates made, fixed, prescribed, and ordered by the Alabama Public Service Commission in its order promulgated after an investigation and hearing, and this Commission is without authority to grant reparation with reference to said rates and charges then in force and effect.

2. For that the Alabama Public Service Commission is without authority under the laws and statutes of Alabama to grant or award reparation against this respondent in this cause.

3. For that petitioner is barred from the relief sought because said relief was sought or prayed for in its original petition and was an issue before this Commission, and said relief not having been granted by this Commission in and by its order promulgated herein under date of April 2, 1936, said issue became and is *res adjudicata* against petitioner.

4. Petitioner is not authorized under the statutes or laws of Alabama to claim or seek reparation either for its citizens or for respondent's other subscribers or patrons within its exchange limits but without the corporate limits of the city of Birmingham.

5. Petitioner is not entitled to reparation as a patron of this respondent for that a large amount of the petitioner's service was, during the time complained of, furnished to it by this respondent free of any charge or cost, and the remainder of said service was furnished to it by this respondent at a special concession of, to wit, 33 $\frac{1}{3}$  per cent below its regular tariff rates.

6. For that under the facts and evidence before this Commission in this cause no reparation should be awarded.

7. For that the facts and evidence

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in this cause do not warrant the granting of any reparation.

8. To grant reparation against this respondent in the manner and form sought in said petition would be violative of the Fourteenth Amendment to the Constitution of the United States in that it would deprive this respondent of its property without due process of law.

9. To grant reparation against this respondent in the manner and form sought in said petition would be violative of § 13 of the Constitution of Alabama in that it would deprive this respondent of its property without due process of law.

At this hearing, the claimant submitted upon the record theretofore made in the hearing of the four consolidated complaints above referred to. The defendant offered certain additional evidence to show that during the period for which reparation is claimed by the city of Birmingham in its own behalf, the city of Birmingham received its exchange telephone service from the defendant either without charge or at a rate of  $33\frac{1}{3}$  per cent below the charges prescribed for other subscribers.

Leave was given the claimant and defendant to file original and reply briefs upon the claim for reparation and the issues made thereunder. All such briefs have heretofore been filed.

*Statement of Facts*

Prior to May 1, 1936, the defendant's rates for its exchange service to subscribers of defendant's Birmingham exchange were rates which became effective pursuant to the Commission's order of January 13, 1934, in the Commission's Docket 6477.

For brevity, this order will hereafter be referred to as the "1934 order."

The 1934 order resulted from a comprehensive investigation by the Commission of the rates and charges, rules and regulations of defendant for the purpose of determining whether its rates and charges, including its rates for exchange service in the cities and towns in Alabama served by defendant and its rates for intrastate toll service, were unjust or unreasonable or unjustly discriminatory, or whether its service was inadequate and whether any rule or regulation of said company pertaining to any of its said intrastate business in Alabama was unjust or unreasonable.

The Commission's order of investigation issued in that case on May 1, 1933, put in issue all rates and charges of defendant for any of its intrastate service in Alabama, and was initiated upon the Commission's own motion.

Due notice of said order of investigation was given to the defendant and to the municipal officials of all the cities and towns in Alabama served by defendant.

Pursuant to such notice, hearings were had by the Commission at Montgomery and in Birmingham on September 6, and October 31, 1933, and on January 3, 1934.

At these hearings the defendant appeared by its counsel and the mayors and other representatives of a number of the cities and towns in Alabama also appeared and took part in such hearings.

Much evidence was offered by defendant and by the Commission. Some testimony was offered by representatives of various cities and towns served by defendant.

## ALABAMA PUBLIC SERVICE COMMISSION

At the conclusion of the final hearing on January 4, 1934, the cause was submitted for the Commission's report and order.

On January 13, 1934, the Commission issued its order making effective certain rates for exchange service in the city of Birmingham and in other cities and towns served by defendant in Alabama.

By its said order of January 13, 1934, the Commission made reductions in several of the rates for exchange service in the Birmingham exchange. Reductions were made in some other charges at the Birmingham exchange by the same order and the Birmingham base rate area was extended to include considerable territory not theretofore included in such base rate area.

While this proceeding was pending and prior to the order of January 13, 1934, the Commission issued an intermediate order reducing the rates on what is called the "French hand set," from 50 cents to 25 cents per month. In addition to this and to the extension of the Birmingham base rate area, the following reductions were made applicable to the Birmingham exchange by the Commission's order of January 13, 1934, namely:

Metered commercial service reduced from minimum of \$6.00 to \$4.50.  
Residential rate—2-party service—reduced from \$3.50 to \$3.25  
Residential rate—4-party service—reduced from \$2.75 to \$2.60.  
Business extensions reduced from \$1.50 to \$1.25.  
Residence extensions reduced from \$1.25 to \$1.00.  
Service connection charges reduced (residence) from \$3.50 to \$3.00.  
Inside moves (residence) reduced from \$3.00 to \$2.00.  
Reconnection charge—instruments in place—reduced from \$1.50 to \$1.25.

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Reductions in defendant's rates for exchange service in the Mobile and Montgomery exchanges and in a number of other exchanges in Alabama were also made by the 1934 order. The estimated effect of the reductions made by the Commission's said order of January, 1934, in the entire state was \$190,000 per annum.

The rates for exchange service made effective by the Commission's order of January 13, 1934, remained in effect until the Commission's said order of April 2, 1936, when reductions were ordered effective May 1, 1936, in the rates for exchange service of subscribers to the Birmingham exchange as well as in the rates for exchange service of other cities and towns in Alabama served by defendant.

The estimated effect of the order of April 2, 1936, was to reduce the defendant's revenue for exchange service in the state as a whole in the amount of \$250,000 per annum, of which the reduction for the Birmingham exchange amounted to approximately \$130,000 per annum.

In its said order of April 2, 1936, the Commission *ordered, adjudged, and decreed* respecting the then existing rates as follows:

1. That the existing rates of respondent for its exchange service are unjust, unreasonable, and unjustly discriminatory to the extent to which respondent's present rates for such service exceed the rates which are prescribed therefor in Exhibit "A" attached to this order and made a part hereof. To that extent, said existing rates be and the same are modified or reduced as shown in said Exhibit "A"

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attached hereto and made a part hereof.

2. That existing base rate areas in and for certain territories should be extended or established as outlined or prescribed in Exhibit "A" attached to this order and made a part hereof. To that extent, said base rate areas in said territories are so extended or established as shown in said Exhibit "A" attached hereto and made a part hereof.

3. All rates and charges, and matters prescribed by this order shall become effective as of the billing dates beginning May 1, 1936.

It is without dispute that the rates for exchange service of defendant's Birmingham exchange in effect on April 2, 1936, were reduced by the Commission's order of that date.

In its brief, the claimant takes the position that there are only two conditions to an award of reparation by the Commission, under § 9722 of the Code of Alabama of 1923, namely:

1. Complaint must have been made to the Commission concerning a rate of a transportation company;

2. The Commission must have found, after a hearing, that the transportation company received an excessive amount on account of such rate.

When those concur, the Commission may order that the transportation company make due reparation to the complainant therefor within a time to be designated in said order, together with interest at the legal rate from the date of receipt of such excessive amount.

The claimant also insists that under the Alabama Transportation Act of 1920, the legislature intended that reparations should be granted in all cases

even where the rate had been approved by the Commission after investigation and hearing. In other words, claimant insists that the legislature of Alabama has put Commission-made rates on the same basis with carrier-made rates in so far as reparation is concerned. In this connection, claimant refers to the requirement set out in § 9711 of the Code of Alabama of 1923 which provides: "Every transportation company shall furnish reasonable and adequate service and facilities, and the charges made for any service rendered shall be reasonable and just."

We have set out above the several grounds of defense urged by the defendant to the claim for reparation. It is not necessary to repeat them here.

*Opinion*

[1-6] The Commission's said order of April 2, 1936, does not mention reparation nor pass upon it in any way. It is the Commission's opinion, therefore, that the claim for reparation before us here was not passed upon nor determined by our order of April 2, 1936.

It is clear, we think, that under the provisions of § 9650 of the Code of Alabama of 1923 a municipal corporation may file a complaint before the Commission that the rates and charges of any transportation company doing intrastate business in Alabama are unreasonable, unjust, or unjustly discriminatory, particularly if the municipal corporation itself or its citizens are affected by such rates and charges, and have the complaint heard by the Commission in accordance with the provisions of the statute.

If, in connection with its complaint

## ALABAMA PUBLIC SERVICE COMMISSION

against such rates, the municipal corporation considers that the municipal corporation itself, or its citizens, are entitled to reparation, it is our opinion that the city may present the issue of reparation and is entitled to have it passed upon by the Commission.

But, even if the Commission should find in the present case that those who had paid the rates for exchange service in the Birmingham exchange in effect between April 1, 1935, and May 1, 1936, are entitled to reparation, the specific award of a definite amount to each claimant could not be made until every such claimant had made proof before the Commission that he had paid or borne the charges assessed by the transportation company within the period during which the Commission had found the rates to have been unjust and unreasonable.

In the present case, if we should find that reparation should be awarded against defendant's rates for exchange service during the period above named, it is our opinion that any subscriber in that exchange could still come forward and file his individual claim and by making proof that he had paid and borne the charges would be entitled to an award of reparation.

In our opinion, however, the mere general finding that reparation should be awarded against rates previously in effect is not enough until it has been supplemented by proof by the individual subscriber that he had paid and borne the charges against which reparation had been found to be proper.

In the present case, however, instead of the claimant itself making proof that it, as a municipal corporation, had paid and borne the charges

for exchange service in effect during the period April 1, 1935, to May 1, 1936, the defendant shows that the municipal corporation itself received such exchange service either free of charge or at a special concession of to wit,  $33\frac{1}{3}$  per cent below the regular tariff rates. Under our order of April 2, 1936, the Commission did not reduce any of the rates for exchange service theretofore in effect as much as  $33\frac{1}{3}$  per cent. It appears, therefore, that even if we should find that reparation should be awarded against the rates in effect under the Commission's order between April 1, 1935, and May 1, 1936, the claimant itself is wholly unable to prove damages, namely; that it has paid and borne the rates in effect under the Commission's order of January 13, 1934, and therefore would be entitled to recover the difference between those rates and the reduced rates which became effective on May 1, 1936.

It is our view, however, that the city would have a right to have the issue of reparation determined here, even though it could not recover any damages for the municipal corporation itself. We say this, because we think it is contemplated by the statute that a municipal corporation is one of the bodies which is entitled to present these issues before the Commission and have them determined either in behalf of the municipal corporation itself or its citizens.

However, as we have stated above, if we should find reparation should be awarded, it would still be necessary for each subscriber to come in and prove that he had paid and borne the rates found to be unreasonable to entitle him to an award of damages.

CITY OF BIRMINGHAM v. SOUTHERN B. TELEPH. & TELEG. CO.

Florence Chamber of Commerce v. Louisville & N. R. Co. (1924) 35 Ann. Rep. Ala. P. S. C. 227; Florence Chamber of Commerce v. St. Louis-S. F. R. Co. (1925) 36 Ann. Rep. Ala. P. S. C. 261, 264.

The effect of the above and foregoing is to overrule and deny defendant's grounds of defense as set out in paragraphs 3 and 4 herein above set out.

Defendant's ground of defense No. 5 above set out is sustained as to the right of the municipality itself as a patron of defendant to recover reparation in its own behalf.

In view of our decision herein, it is unnecessary for us to express an opinion with respect to defendant's grounds of defense Nos. 8 and 9 as above set out.

[7, 8] The defendant's grounds of defense Nos. 1, 2, 6, and 7 raise the question as to whether the Commission may properly award reparation against its rates resulting from the Commission's order issued on January 13, 1934, in the Commission's Docket 6477.

The defendant insists that its rates resulting from this 1934 order are "Commission-made" rates and that the Commission may not properly award reparation against such rates, as distinguished from "carrier-made" rates, that is rates initiated by the carrier.

The claimant insists that it is entitled to reparation whether the rates following the Commission's order of January 13, 1934, be held to be either commission-made or carrier-made rates.

It is the opinion of the Commission that defendant's said rates required to

be made effective under said order of January 13, 1934, are Commission-made rates.

The important question for our decision in determining whether reparation may properly be awarded in this case appears to us to turn upon the question whether we may properly grant reparation as against rates which have been in effect because of a mandatory order of the Commission requiring such rates to be made effective, after due notice and hearing of a proceeding had by the Commission for the purpose of inquiring into the reasonableness of existing rates and determining what would be just and reasonable rates to apply in the future.

This is the sort of proceeding which had been had by the Commission resulting in the issuance of its said order of January 13, 1934.

It appears that counsel for both claimant and defendant agree that the specific question above stated namely: Whether the Commission may properly grant reparation against rates which have been so made by it, has not been determined by the supreme court of Alabama. Our supreme court referred to the question as being one "of serious import" in the case of Western Railway v. Montgomery County (1934) 228 Ala. 426, 153 So. 622, but held the decision of the question was not necessary in the determination of that case.

In Arizona Grocery Co. v. Atchison, T. & S. F. R. Co. (1932) 284 U. S. 370, 76 L. ed. 348, 52 S. Ct. 183, the Supreme Court of the United States, construing the Interstate Commerce Act, as amended, held that where the Interstate Commerce Commission had, upon complaint, and af-

## ALABAMA PUBLIC SERVICE COMMISSION

ter hearing, declared what is the maximum reasonable rate to be charged by a carrier, the Commission may not at a later time, and upon the same or additional evidence as to the facts existing when its previous order was promulgated by declaring its own finding as to reasonableness erroneous, subject a carrier which conform thereto to the payment of reparation measured by what the Commission later holds it should have decided in the earlier proceeding to be a reasonable rate.

It would seem, therefore, that if the pertinent provisions of the statutes of Alabama are substantially comparable to like provisions of the Interstate Commerce Act, as amended, then the ruling of the Supreme Court of the United States in the Arizona Grocery Company Case, *supra*, is the best guide which we have in passing upon this question.

We find that pertinent provisions of the Interstate Commerce Act, as amended, are as set out next below, the references being to sections and paragraphs of that act:

It is the duty of common carriers, including telephone companies, to establish just and reasonable rates, fares, and charges. (Section 1, Par. 4.)

All charges for any service by such common carriers, including telephone companies, shall be just and reasonable, and every unjust and unreasonable charge for such service is prohibited and declared to be unlawful. (Section 1, Par. 5.)

Unjust discrimination in rates prohibited and declared to be unlawful. (Section 2.)

Unlawful to make or give any un-

due or unreasonable preference or advantage to any person, or to subject any person to any undue or unreasonable prejudice or disadvantage. (Section 3.)

Every common carrier must file with the Commission and print and keep open to the public its tariffs showing its rates and charges. (Section 6, Par. 1.)

No change shall be made in rates which have been filed and published, except after thirty days' notice to the Commission and the public, provided the Commission may allow changes upon less than the 30-day notice. (Section 6, Par. 3.)

Violation of the act is a misdemeanor and punishable as such. (Section, 10.)

Carrier liable for damages resulting from violation of the act. (Sections 8 and 9.)

Carrier required to make reparation for injury done by violation of act. (Section 13.)

Commission may award damages for violation of act. (Section 16.)

When an investigation is made by the Commission, it must make a report in writing, stating its conclusions, together with its decision, order, or requirement, and in case damages are awarded, such report shall include the findings of fact on which the award is made. (Section 14.)

After due notice and hearing, the Commission may prescribe the rate to be observed by the carrier in the future, and such rate must be made effective by the carrier. (Section 15.)

Commission has power to suspend new rate proposed to inquire into the lawfulness thereof. (Section 15, Par. 7.)

CITY OF BIRMINGHAM v. SOUTHERN B. TELEPH. & TELEG. CO.

We now set out next below the pertinent provisions of the Alabama statutes, the references being to sections as numbered in the Code of Alabama of 1923, namely:

Charges of every transportation company for any service rendered, shall be reasonable and just. (Section 9711.)

Any transportation company which violates above named § 9711, or any order or requirement of the Commission is guilty of an offense, and may also be subjected to a penalty therefor. (Sections 9730, 9731.)

All rates adopted or acted upon by any transportation company inconsistent with those prescribed by the Commission, acting within the scope of its authority are unlawful. (Section 9629.)

Commission is empowered upon complaint or on its own motion, after due notice, to investigate rates alleged or believed to be unreasonable or unjustly discriminatory, and to fix and order substituted therefor rates determined to be just and reasonable, which must be charged and imposed by the carrier in the future. (Sections 9650-9661.)

The Public Service Commission may regulate freight and passenger tariffs. (Section 9634.)

No change shall be made by any common carrier in the rates and charges which have been filed or published by it, or which are in force at the time, until the proposed changes have been submitted to and approved by the Commission.

The Commission may permit such rates to become effective on shorter notice than the ten days prescribed by the statute. (Section 10021.)

Carrier must observe its lawful tariffs. Must not unjustly discriminate in rates assessed. Penalty for violation. (Sections 10023 and 10028.)

Transportation company liable for reparation where it has violated the statutes by receiving "an excessive or unjustly discriminatory amount on account of such rate or charge." (Section 9722.)

In so far as the propriety of awarding reparation is concerned, we are unable to find any substantial difference in legal substance and effect between the pertinent provisions of our statutes and like provisions of the Interstate Commerce Act, as amended.

Under our statutes, we have many rates which are "carrier-made," which are filed with the Commission under § 10021 of the Code of Alabama of 1923, and are permitted by the Commission to become effective. The reasonableness of such rates has not, however, been determined by the Commission and the rates become effective by permission of the Commission as distinguished from being put into effect under the Commission's mandatory order after due notice and hearing upon the issue of reasonableness *vel non*.

Such carrier-made rates so permitted to become effective become "legal rates" as this term is used by the Supreme Court of the United States in the Arizona Grocery Company Case, *supra*. In that case, the court uses the word "lawful" as applying to rates which have been determined to be reasonable. It appears the term "lawful" is used in the Alabama statutes relating to rates of transportation companies, and sometimes in the decisions

## ALABAMA PUBLIC SERVICE COMMISSION

of our Alabama courts, in the sense in which the word "legal" is used by the United States Supreme Court in the Arizona Grocery Company Case, *supra*, and not as limited to rates which have been determined to be reasonable.

In the regular administration of our duties, there is scarcely a day when some of these carrier-made rates are not permitted to become effective. In many instances they are permitted to become effective on one day's notice. It may well be said, that it is very necessary for the Commission to have such authority and to be prepared to administer it promptly in order to expedite the free movement of commerce.

The Commission's order of approval permitting these rates to become effective provides that it shall be without prejudice to any interest affected thereby in any future investigation by the Commission, upon complaint or otherwise, of the reasonableness and propriety of such rates. However, it is our opinion that this would be true because of the manner of such rates being permitted or approved, even though no such stipulation was written into the order.

These carrier-made rates in our opinion would be subject under our statutes to an award of reparation against them, if found by the Commission to be unjust and unreasonable.

These carrier-made rates are to be distinguished from rates which are made by the Commission in the case of transportation companies under the provisions of §§ 9650-9661. Rates made by the Commission under these provisions of our statutes, after due notice and hearing, for the purpose of determining rates that are reasonable

and free from unjust discrimination, must, it seems to us, be considered as Commission-made rates which, under the mandatory order of the Commission, the transportation companies must make effective in the future.

What is said by the Supreme Court of the United States in the Arizona Grocery Company Case, *supra*, about the provisions of the Interstate Commerce Act, as amended, upon which the decision is based, and about the authority of the Interstate Commerce Commission under such act, may, in our opinion, *mutatis mutandis*, be equally as well said about our comparable statutes and the authority of our state Commission thereunder, in so far as the awarding of reparation is concerned. This being true, in the absence of a decision by our own state supreme court to guide us, we have reached the conclusion that the decision of the Supreme Court of the United States in the Arizona Grocery Company Case, *supra*, is decisive of the present case.

That is to say, it is our opinion and we so find that we cannot properly award reparation as against rates which have been in effect because of a mandatory order of the Commission requiring such rates to be made effective, after due notice and hearing, and resulting from a proceeding had by the Commission for the purpose of inquiring into the reasonableness of previously existing rates and determining what would be just and reasonable rates to apply in the future.

It follows from what we have said that the present claim for reparation, both in behalf of the city of Birmingham itself, and in behalf of its citizens who are subscribers to the exchange

service of defendant in the Birmingham, Alabama, exchange, must be entered, overruled and denied. An appropriate order is herewith

WISCONSIN PUBLIC SERVICE COMMISSION

Re City of Oconto Falls

[2-U-835.]

Rollyn Saunders et al.

v.

City of Oconto Falls

[2-U-822.]

*Depreciation, § 26 — Excessive reserve — Municipal electric plant.*

1. A depreciation charge of  $4\frac{1}{2}$  per cent of the property and plant of a municipal electric utility was reduced to 3 per cent where the retirement reserve had been accumulated to approximately 80 per cent of total property and plant, p. 239.

*Expenses, § 134 — Municipal plant — Unpaid taxes.*

2. No allowance should be made in the case of a municipal utility for reported state and county taxes when the utility is not obligated to pay such taxes, p. 239.

*Return, § 100 — Municipal electric plant.*

3. A return of 6 per cent was allowed on the rate base of a municipal electric utility, p. 240.

*Rates, § 294 — Kind — Fixed charge — Municipal electric plant.*

4. The form of rate to be prescribed for the residential and commercial service of a municipal electric utility should be of the standard fixed charge type, segregating in a separate portion of the rate distinct from the prices for energy the fixed costs and customer costs, p. 240.

*Rates, § 362 — Electric — Street lighting.*

5. The form of rate best suited to street lighting service in the case of a municipal electric plant was held to be a 3-part rate consisting of (1) an investment charge which would reimburse the utility for such fixed charges as interest, depreciation, taxes, and insurance on the utility investment in the street lighting system, (2) a renewal charge to cover the costs of lamp renewals, labor for making replacements, cleaning and washing the glass-ware, etc., and (3) an energy charge based on the amount of energy required by the system, p. 241.

## WISCONSIN PUBLIC SERVICE COMMISSION

### *Apportionment, § 54 — Street lighting investment — Municipal electric utility.*

6. To a municipal electric utility's investment in special street lighting equipment there should be allocated a percentage of the total distribution system investment which is used jointly for street lighting purposes, p. 242.

### *Return, § 100 — Municipal electric utility — Street lighting.*

7. Six per cent was allowed for interest on investment by a municipal electric utility in street lighting property, p. 242.

### *Depreciation, § 64 — Municipal electric utility — Street lighting.*

8. An allowance of 3 per cent was made for depreciation of property used by a municipal electric utility for street lighting, p. 242.

### *Expenses, § 132 — Municipal electric utility — Taxes and insurance.*

9. A municipal electric utility was allowed 2 per cent for taxes and 3 per cent for insurance as part of the fixed charges in connection with street lighting property, p. 242.

[March 13, 1936.]

**I**NVESTIGATION on motion of Commission of rates, rules, practices, and activities of a municipal electric plant; new rates, rules, and regulations established.

By the COMMISSION: This action arises as the result of a petition by Mr. Rollyn Saunders and twenty-seven other residents of Oconto Falls, alleging that the rates for electric service furnished by the Oconto Falls Water and Light Department are excessive and out of proportion with the kind and type of service furnished. Petitioners further allege that private consumers of electricity have been required to pay higher rates for service because of the fact that the city of Oconto Falls has not met its obligations to the utility for such services as it received, namely street lighting and hydrant rentals for fire protection. Joint hearings in the above-entitled matter and the related case, 2-U-857, decided December 23, 1935, were held in Madison on September 4, and October 11, 1935. Appearances were entered by the following:

Oconto Falls Water and Light Department by E. A. Johnson, Superintendent  
14 P.U.R.(N.S.)

tendent and Manager, A. W. Johnson, Secretary, Water and Light Commission, Frank Truedell, President, Water and Light Commission, J. C. Dobbertin, Plant Superintendent and Member of Water and Light Commission; Union Falls Power Company, by Lehner and Lehner, Attorneys, by Adolph P. Lehner, Oconto Falls.

An investigation into the operations of the water utility indicates that that department is not earning in excess of a fair return. For the purposes of this order the Commission finds and determines that the rates now on file for water service to general consumers and to the city for fire protection are reasonable. Attention is called to the unmetered customers. Where feasible, such unmetered service should be placed on a metered basis as soon as possible to avoid possible waste of water and discrimination.

Present rates of this electric utility

## RE CITY OF OCONTO FALLS

which will be affected by the provisions of this order follow: [Schedule omitted.]

As part of the investigation in this matter the Commission accountants made an examination of the utility books for the purpose of verifying operating revenues and expenses for the year 1934 and determining a corrected balance sheet as of December 31, 1934. This investigation revealed that the accounting system employed by the utility would have been satisfactory had it been properly maintained by the utility. Utility officials were furnished a copy of the Commission's audit report in which certain recommendations were made relative to the accounting procedure to be followed in the future. There is also set forth in the report an adjusted balance sheet supplemented by tables for particular accounts. The Commission finds and determines that the adjustments and recommendations as to accounting procedure outlined in the audit report are reasonable and in the best interests of the utility and its customers. Utility officials are herewith charged with the responsibility of following these recommendations.

### *Rate Base*

No appraisal of the utility property was made for the purpose of determining a rate base in this case. It would appear, however, that book values fairly represent the cost of property and plant. Gross plant value of the electric utility as of December 31, 1934, was \$48,984.23 and the retirement reserve, \$38,333.23, so that the net plant value was \$10,651. An allowance of \$800 for working capital and materials and supplies would ap-

pear reasonable and this, added to the net plant value above, results in a rate base of \$11,450 which for the purposes of this case will be considered the fair value of the property for rate-making purposes.

### *Operating Income*

Gross revenues of \$16,360.18 were reported by the utility for the year 1934. The Commission finds it reasonable to use this figure in the determination of the return earned.

Operating expenses, including depreciation expense and taxes, were reported in the amount of \$13,971.12. Deducting this figure from the gross operating revenues mentioned above indicates an operating income of \$2,389.06.

[1] During the year 1934 the utility set aside as an allowance for depreciation expense  $4\frac{1}{2}$  per cent of the gross property and plant. As we have indicated above the retirement reserve at the end of 1934 was approximately 80 per cent of total property and plant. In view of these large accumulations in the reserve it would seem that a lower annual allowance for depreciation expense would be justified. After consideration of the facts involved in this case, the Commission finds and determines that an annual allowance of 3 per cent for depreciation expense is reasonable. Reduction of this item of expense will increase income approximately \$750 per year.

[2] In 1934 the utility reported state and county taxes of \$235. Inasmuch as the utility is not obligated to pay this amount we do not believe it should be allowed as an operating expense. Salaries of the plant superin-

## WISCONSIN PUBLIC SERVICE COMMISSION

tendent and his assistant, the only full-time operation and maintenance employees of the utility, were increased 10 per cent as of September 1, 1934.

After making these adjustments, the operating expenses for 1934 appear reasonable. The net effect of the above adjustments in salary expense, depreciation expense, and taxes is to increase operating income for the period \$836. This, added to the reported income of \$2,389 referred to above, gives an adjusted operating income of \$3,225.

Under date of December 23, 1935, the Commission issued an order in 2-U-857, Investigation on Motion of the Commission of the Rates, Rules and Practices of the Union Falls Power Company, which established a revised wholesale power rate for energy sold to the Oconto Falls utility. This revised rate is a demand and energy form of schedule and it is estimated that it will lower the cost of purchased energy for the Oconto Falls utility about \$350 annually. Under ordinary circumstances the Commission would require that this saving be passed on to the consumers in the form of a rate reduction. In the present case, however, no demand readings were available and though we feel that the saving estimated above is reasonably accurate, it is of course subject to some possibility of error, depending on the accuracy of our estimated demands. The municipal utility has advised the Commission that during the past several months it has been necessary for the water department to do some pumping during the on-peak hours in order to prevent the mains from freezing. Our original estimates contemplated that all mu-

nicipal water pumping could be done in the off-peak hours. In view of this circumstance and the fact that any predicted saving in the cost of purchased energy is at best an estimate, we have not included this estimated saving in the amount available for a rate reduction at this time. The Commission retains jurisdiction to further revise rates after the new wholesale rate has been in effect for a reasonable period and the results of its application are definitely known.

### *Rate of Return*

[3] Recently the Commission has almost invariably found that a reasonable return for both municipal and private electric utilities is 6 per cent. No evidence was produced in the instant case which would warrant a departure from this policy. The Commission therefore finds and determines that a 6 per cent return on the rate base above determined is reasonable. This percentage, applied to the rate base of \$11,450, indicates that the adjusted operating income of the Oconto Falls Electric Department in 1934 was approximately \$2,500 in excess of a fair return. The rates to be adopted as a result of this order will reduce revenues by approximately this amount. This estimate does not attempt to measure or reflect the effect of increased sales of energy which should result from application of the revised rates.

### *New Rates and Rules*

[4] The Commission has decided that the form of rate to be prescribed for the residential and commercial service of this utility should be of the standard fixed charge type

## RE CITY OF OCONTO FALLS

which is now being applied by a large number of other municipally and privately owned utilities in this state. In order that there be no misunderstanding as to the basis of this new form of rate, we shall explain briefly its essential features.

There are certain costs incident to the distribution of electrical energy which do not vary with the customer's use and which vary only slightly with the size of the installation. These costs may be divided into two groups, (1) fixed costs and (2) customer costs. The fixed costs include such items of expense as interest, depreciation, and taxes on the utility investment in meter and services on the consumer's premises. The so-called customer costs include such expenses as meter reading, meter testing, billing and collecting, and the sundry other expenses involved in keeping customers' accounts.

Heretofore, the above-mentioned costs have been merged with other costs and included in the price for energy. It is the Commission's conclusion, based upon its study of this form of rate as applied by other utilities in the state, and its experience with existing forms of rates generally, that the segregation of the above-named costs in a separate portion of the rate, distinct from the prices for energy, makes the rate as understandable to customers as the present block type of rate and tends to put all customers on a more equitable basis, thereby tending to eliminate certain elements of possible discrimination. The primary advantages of the fixed charge type of rate, therefore, lie in its relative simplicity, the ease with which customers can check their bills,

the placing of customers on an equal footing, and the fact that it closely approximates the cost of serving customers. A further advantage of this rate form is that by taking up the fixed costs and customer costs in a fixed charge, the price per kilowatt hour of energy can be set at a lower level.

An analysis of customer use for residential service indicates a tendency on the part of customers of this utility to watch their meters and restrict their use to the amount of energy allowed for the minimum bill. This is evidenced by the fact that in 1934, 18 per cent of all residential bills were for exactly 10 kilowatt hours, the amount allowed for the minimum bill. It is our opinion that the revised rates having the fixed charge as a minimum bill and a lower price per kilowatt hour for energy may remedy this situation to some extent and make for generally increased use of the service. We have noted that in other localities the form of rate hereinafter ordered has permitted customers to enjoy the benefits derived from increased use of electrical energy without the cost thereof becoming unduly burdensome. We anticipate that the same result will also be found in the case of the Oconto Falls utility after the new rates have been given a fair trial.

### *Street Lighting Service*

[5] The utility requested the Commission as a part of its general investigation of rates to make a determination as to the reasonableness of the street lighting rate now charged the city of Oconto Falls. It appears that during the past several years the city has found it necessary

## WISCONSIN PUBLIC SERVICE COMMISSION

to limit the hours of burning as an economy measure. As a result the burning schedule has been quite irregular and the utility has found it difficult to administer the present rate which is based on a flat price per lamp. The Commission has concluded that in this particular case the form of rate best suited to street lighting service is a three part rate consisting of (1) an investment charge which would reimburse the utility for such fixed charges as interest, depreciation, taxes, and insurance on the utility investment in the street lighting system, (2) a renewal charge to cover the costs of lamp renewals, labor for making replacements, cleaning and washing the glassware, etc., and (3) an energy charge based on the amount of energy required by the system.

[6-9] The utility's investment in special street lighting equipment as of December 31, 1934 was \$5,103.67. To this there should be allocated a percentage of the total distribution system investment which is used jointly for street lighting purposes. We feel that a reasonable allocation for the purpose of establishing a rate in this case would be 20 per cent. The total investment reasonably attributable to street lighting service was, by this method, found to be \$11,139. On this investment we have allowed as fixed charges 6 per cent for interest, 3 per cent for depreciation, 2 per cent for taxes, and .3 per cent for insurance, a total of 11.3 per cent or \$1,260.

The charges for lamp renewals and

energy as set forth in the revised street lighting rate are based in so far as practicable on the cost of rendering the service. It is estimated that the revised rate will reduce the city's street lighting bill approximately \$300 per year.

The new rates and rules designed for service rendered by this utility are as follows: [Schedule omitted.]

After investigation, the Commission recognizes that the application of the revised residential and commercial lighting rates will increase slightly the bills of some customers. For most of these customers, however, the increased bills in some months will be more than offset by reduced bills in other months so that the net annual bill will be lower under the new rates.

The following general rules and regulations of the utility appear in need of revision to bring them in line with standard practice. Those rules not specifically revised below should remain in effect. [Rules omitted.]

The Commission therefore finds and determines that the rates and rules for electric service rendered by the Oconto Falls Water and Light Department in so far as they are modified in this order are unreasonable and that the new or modified rates and rules prescribed herein are reasonable.

The Commission further finds and determines that the water utility of the Oconto Falls Water and Light Department is not earning in excess of a fair return and that the present rates for water service are reasonable.

NEW YORK DEPARTMENT OF PUBLIC SERVICE, METROPOLITAN  
DIVISION, TRANSIT COMMISSION

Re Clinton L. Bardo, Trustee of New  
York, Westchester & Boston  
Railway Company

*Rates, § 246 — Schedules — Increase by filing — Necessity of Commission action.*

Neither a railway nor its trustee has power to increase a maximum rate fixed by the Commission by the mere filing of a tariff schedule under § 29 of the Public Service Law, for the increase may be effected only by the affirmative action of the Commission under § 49 of that law.

[June 8, 1936.]

**F**ILING of local passenger tariff to increase rates; tariff schedule rejected as unlawful and hearing order adopted on application requesting change or abrogation of Commission rate order.

FULLEN, Chairman: Clinton L. Bardo, as trustee of New York, Westchester & Boston Railway Company, filed with this Commission on May 29, 1936, a local passenger tariff to become effective on July 1, 1936, providing for a fare of 10 cents for a single one-way ride between any of the stations on the portion of that company's railroad within New York city and also providing for the sale of a special 12-trip ticket for \$1 for use between such stations, thus making the fare 8½ cents for a passenger using such a ticket. The new schedule purports to cancel the existing tariff schedule which provides for a fare of 7 cents for such a ride.

On May 2, 1922, the Transit Commission fixed 7 cents as the maximum rate, fare, or charge to be observed by that company for a ride between its stations in New York city and that

rate has been in effect since May 15, 1922 (Case No. 2433). The order fixing that maximum fare expressly provided that the order should continue in force until changed or abrogated by further order of the Commission.

As the maximum rate chargeable on the line within New York city was fixed by the Commission, neither the company nor its trustee has any power to increase such rate by the mere filing of a tariff schedule under § 29 of the Public Service Law. The proposed increase may only be effected under § 49 of that law and by the affirmative action of the Commission in first determining, after a hearing upon its own motion or upon complaint, that the maximum rates chargeable "are insufficient to yield reasonable compensation for the service rendered, and are unjust and unreasonable."

## NEW YORK DEPARTMENT OF PUBLIC SERVICE

See *Dry Dock, E. B. & B. R. Co. v. Transit Commission*, 228 App. Div. 354, P.U.R.1930C, 49, 239 N. Y. Supp. 501; 254 N. Y. 305, P.U.R. 1930D, 266, 172 N. E. 516.

The trustee has filed an application requesting the Commission to change or abrogate the order made on May 2, 1922, in Case No. 2433 by changing from 7 cents to 10 cents the maximum rate of fare or charge between stations in New York city and permitting him

to put into effect at the expiration of thirty days' notice the local passenger tariff filed with the Commission on May 29, 1936, showing the increased rates.

With respect to that tariff schedule, an order should be made rejecting same as unlawful. With respect to that part of the application requesting a change or abrogation of the Commission's order of May 2, 1922, a hearing order should be adopted.

## PENNSYLVANIA PUBLIC SERVICE COMMISSION

### Quertinmont Glass Company v. Greensboro Gas Company

[Complaint Docket No. 10738.]

#### *Rates, § 375 — Gas — Minimum charge — Industrial use.*

1. A requirement that a glass manufacturing company contract for a minimum monthly payment of \$1,800 for gas furnished by a public utility company, in addition to gas requirements met by the manufacturing company's own gas field, would be unreasonable even if the monthly cost of rendering service to the customer should amount to \$73.25 per month exclusive of any capital cost for wells, transmission and distribution system, and expense of operation in connection therewith, it appearing that the utility in the past has charged a net rate of 40 cents per thousand cubic feet without any minimum requirement, p. 246.

#### *Rates, § 252 — Deviation from schedules — Minimum charge to industry.*

2. The imposition of a minimum charge upon a manufacturing company taking gas for use in addition to gas it obtains from its own field is contrary to the Public Service Company Law unless the regulation is part of the tariff on file with the Commission and has become the utility's legal rate, p. 246.

#### *Rates, § 187 — Burden of proof — Sustaining the burden.*

3. A complainant against a gas rate charged for industrial gas fails to meet its burden to show existing rates to be unreasonable when the record contains neither an appraisal of property used and useful in rendering gas service to all consumers, nor the requirements for depreciation, nor the cost of operation, upon which the Commission might judge the reasonableness of the utility's rates, p. 247.

[June 2, 1936.]

QUERTINMONT GLASS CO. v. GREENSBORO GAS CO.

**C**OMPLAINT *against rates for natural gas for industrial use; complaint sustained in part.*

By the COMMISSION: Complainant states that part of its gas requirements for glass melting purposes is furnished from its own wells and the balance is secured from respondent. It alleges that while respondent formerly furnished it with natural gas, charging therefor 40 cents net per thousand cubic feet, respondent now refuses to make further delivery of natural gas to it unless complainant enters into a special contract providing for a rate in excess of 40 cents net per thousand cubic feet. Complainant further alleges that respondent's filed tariff provides for a rate of 40 cents net per thousand cubic feet to industrial consumers using gas exclusively from respondent, and the tariff makes no provision for an industrial consumer taking only a portion of its gas requirements from respondent; that the rate of 40 cents net per thousand cubic feet is unjust, unreasonable, and confiscatory, and that it is unreasonable for respondent to have one rate for exclusive use of its product, and another rate for partial use of its product.

In answer, respondent admits that it has furnished gas to complainant under its industrial rate of 40 cents net per thousand cubic feet as shown in its tariff P. S. C. Pa. No. 24, effective November 30, 1933; avers that by far the greater portion of complainant's gas requirements are secured from complainant's own gas field; that only the excess amount needed for complainant's full requirements is secured from respondent, and

that such service from respondent is "stand-by service" or "breakdown service"; that to furnish such irregular service entails increased cost of operation. It admits that it has no tariff on file providing for partial use of its product by industrial consumers, and avers that although it believes it has the right to refuse such "stand-by service" as complainant demands, it will not discontinue furnishing gas to complainant during the pendency of the instant proceeding.

The complainant, a Pennsylvania corporation, is operating under three receivers appointed in January, 1935, and continued in possession of the property from time to time thereafter by a decree of the court of common pleas of Fayette county. Complainant owns and operates a glass plant, situated in Fairchance, Fayette county, which produces approximately 350,000 square feet of window glass per week, and employs 150 to 200 persons. Complainant follows the practice, common to glass plants, of operating for twelve to eighteen months, and then shutting down for two to eight months to repair the glass melting furnaces. After being shut down for about twelve months, due to repair of furnaces and business conditions, complainant reopened its plant in April, 1935.

The complainant also owns nine producing gas wells and a pipe line about  $5\frac{1}{2}$  miles in length, extending from the wells to its plant in Fairchance. The major portion of the natural gas used in its glass plant is

## PENNSYLVANIA PUBLIC SERVICE COMMISSION

obtained from its wells through its pipe line. During the operations of the plant previous to the reopening in April, 1935, respondent furnished the remainder of the gas requirements of complainant at the net rate of 40 cents per thousand cubic feet, shown in P. S. C. Pa. No. 24, effective November 30, 1933, as the rate for the total requirements of gas for manufacturing plants. That tariff makes no provision for serving partial requirements of gas for manufacturing plants. The record does not show the quantity of gas, nor the period during which delivery was made at that charge, nor the proportion of complainant's requirements furnished by respondent.

Complainant reopened its plant in April, 1935, and respondent delivered gas pending the signing of a contract which respondent tendered. The contract provides that complainant take or pay for a minimum of 300,000 cubic feet of gas per day at a net rate of 40 cents per thousand cubic feet. Complainant refused to sign this contract, whereupon respondent submitted a second contract providing for a minimum quantity of gas to be taken or paid for per day of 150,000 cubic feet at a net rate of 40 cents per thousand cubic feet. The contract also states that complainant was not to use the service as stand-by service. Complainant refused to sign this contract, stating it could not afford to pay such minimum charge as provided in the contract.

Since complainant refused to sign either of the tendered contracts, respondent, on May 3, 1935, notified complainant in writing that the temporary service then being rendered to complainant must be discontinued on

May 15, 1935. However, contrary to that notification, respondent continued serving gas to complainant without rendering a bill therefor at a stated price, and will not discontinue serving gas during the pendency of this proceeding.

Complainant uses approximately 850,000 cubic feet of gas per day when the plant is operating, the amount varying slightly due to weather conditions. During shut-down periods, gas is used only for heating the factory building, and on reopening, about two weeks are required to pre-heat the furnaces before starting to make glass, during which the use of gas is in limited quantity. Complainant's own gas field supplies a large portion of its gas requirements. Respondent delivered during the last twelve days of April, 1935, when the furnaces were being pre-heated, 448,000 cubic feet of gas, and average daily quantity of 37,333 cubic feet, varying from 8,000 to 106,000 cubic feet per day. During the month of May, 1935, when glass was being made, respondent delivered 2,352,000 cubic feet of gas, an average daily quantity of 78,123 cubic feet, varying from zero to 177,000 cubic feet per day.

[1, 2] Prior to the shut-down period ending in April, 1935, respondent furnished gas to complainant to complete its requirements over the amount secured from complainant's own gas wells, and the record fails to show that that service differed from the service rendered in April and May of 1935, as above outlined. Respondent apparently never experienced any unusual difficulty in rendering service to complainant, nor incurred any ad-

ditional operating expense. Respondent shows the original cost of the service line extending from its main to complainant's plant, together with the necessary regulator and metering equipment, to be \$2,367, from which it deducts 10 per cent for accrued depreciation, leaving \$2,131. Respondent claims 10 per cent per annum on such depreciated cost, which is \$17.75 per month, and adds \$45 per month as the estimated cost of changing the daily charts on the meter at complainant's plant, and \$10.50 as the expense of computing these charts and rendering a bill. Thus, respondent estimates the total cost of rendering service to complainant at \$73.25 per month, exclusive of any capital cost for its wells, transmission, and distribution system, and any expense of operation in connection therewith. This evidence is not conclusive to show us the total cost of rendering service to complainant.

However, respondent contends that an expense of \$73.25 per month is entailed, whether or not complainant takes any gas. The items comprising this total, which on their face appear excessive, are but the same type of expenses involved in serving any industrial consumer. Even if the expense of \$73.25 were proper, it would be unreasonable to require complainant to contract for a minimum monthly payment of \$1,800, as provided in the second tendered contract.

The testimony shows that respondent has a sufficient source of gas available to it to furnish the requirements of complainant at any time, under existing conditions. In the past, respondent charged complainant a net

rate of 40 cents per thousand cubic feet without any requirement for minimum use of gas or corresponding payment. It, therefore, is unreasonable under the circumstances to require complainant to pay a minimum monthly charge of \$1,800. Respondent should bill complainant at that rate for gas service rendered subsequent to the reopening of complainant's plant in April, 1935, and we so find. Furthermore, it would have been contrary to The Public Service Company Law for respondent to have imposed the requirement that complainant, or any other consumer, take or pay for a minimum daily quantity of gas of 150,000 cubic feet at a net rate of 40 cents per thousand cubic feet, unless such regulation was a part of the tariff on file with this Commission, and had become respondent's legal rate.

[3] Complainant alleged that the rate of 40 cents per thousand cubic feet is excessive and unreasonable, and offered testimony regarding prices paid for gas in the field by respondent and a price of transmission, claiming a total cost of 25 cents per thousand cubic feet, to deliver gas to its plant at Fairchance. Respondent shows that the price of gas in the field which it pays is 18 cents and 20 cents per thousand cubic feet, but fails to show cost of transmission and cost of operation. However, the record does not contain an appraisal of respondent's property used and useful in rendering gas service to all its consumers, nor the requirements for depreciation of such property, nor the cost of operation, upon which we might judge the reasonableness of respondent's

## PENNSYLVANIA PUBLIC SERVICE COMMISSION

rates. The record being void of such data, complainant has failed to meet its burden to show existing rates to be unreasonable.

Based upon our findings, hereinbefore outlined, the complaint will be sustained to the extent noted; therefore,

Now, to wit, June 2, 1936, it is *ordered*: That the complaint be and is

hereby sustained to the extent herein indicated.

It is *further ordered*: That the Greensboro Gas Company, respondent, charge complainant for gas service to its glass plant at Fairchance, Fayette county, in accordance with the tariffs for industrial consumers which have been effective since April, 1935.

## NORTH CAROLINA UTILITIES COMMISSION

### Town of Bryson City

v.

### Smoky Mountain Power Company

[Docket No. 620.]

*Rates, § 647 — Pleading — Complaint — Conclusions — Details of facts.*

1. A petition filed against a public utility company alleging, in the words of the statute, that the rates charged are too high for the services rendered and that the same are unfair, unreasonable, and unjustly discriminatory, is not defective as alleging a conclusion without alleging facts from which the conclusion is reached and, therefore, need not be made more specific and definite through the filing of a bill of particulars, where all the matters bearing upon the question are peculiarly within the knowledge of the company and are matters about which the petitioner could not be expected to have exact and detailed information, p. 249.

*Rates, § 647 — Pleading — Allegations — Rates of other companies.*

2. An allegation in a petition against public utility rates that although all other power companies within the state have made substantial reductions, no reductions have been made by the company complained against, should be stricken out as immaterial and improper, since the rates of each utility must be determined upon the valuations of the properties, the costs of operation, and the revenues received from and by that particular utility without regard to what other utilities are charging, p. 251.

[June 1, 1936.]

**M**OTION by electric utility company that town petitioning for rate reduction be required to make its petition more specific and certain; motion to require bill of particulars denied, and motion to strike out immaterial allegation allowed.

## BRYSON CITY v. SMOKY MOUNTAIN POWER CO.

The above-entitled matter came on for hearing before Stanley Winborne, Utilities Commissioner, sitting alone, on Tuesday, April 14, 1936, in the city of Raleigh, upon the interlocutory motion filed by the respondent asking that the petitioner be required to make its petition, and especially § 4 thereof, more specific and definite, and also that § 5 of said petition be stricken out as being immaterial and improper.

The respondent was represented at this hearing by Judge T. D. Bryson, of the Duke University law faculty, Durham, and the petitioner by Mr. McKindley Edwards, Attorney at Law, Bryson City.

The respondent, through its attorney, Judge Bryson, contended that § 4 of the petition, which reads as follows, "that the rates being charged are unjust, unreasonable, and unjustly discriminatory," states a conclusion of facts without alleging facts from which said conclusion is reached, and that as a matter of law said allegation is fatally deficient and that if same is not amended so as to set out in particular why said rates are unjust, unreasonable, and unjustly discriminatory, that the petition fails to state a cause of action and should be dismissed.

It was further contended by the respondent, through its attorney, Judge Bryson, that allegation 5 of the petition, which is as follows, "that although all other power companies within the state of North Carolina have made substantial reductions in the past two years, no reductions have been made by the Smoky Mountain Power Company," is an immaterial allegation calculated to unduly preju-

dice the respondent's defense; has nothing to do with the rates charged by the respondent, and should be ordered stricken from the petition.

The petitioner, through its attorney, Mr. Edwards, in reply to the contention of the respondent contended that allegation 4 followed the wording of the statute, as set out in § 2, Chap. 307, Public Laws of 1933, which provided "that every rate made, demanded, or received by any public utility, or by any two or more public utilities jointly, shall be just and reasonable," and that allegation 4 which alleged that the rates being charged by the petitioner are unjust and unreasonable and unjustly discriminatory is a sufficient allegation made under the statute and fully apprises the respondent of what the petitioner intends to offer evidence tending to prove, and that if said petitioner does support said allegation by evidence establishing the fact that the rates charged by the respondent are unjust, unreasonable, and unjustly discriminatory, that the petitioner is entitled to an order reducing the rates of the respondent in an amount sufficient to make them just and reasonable as required by the statute.

WINBORNE, Commissioner: From the evidence adduced at the hearing, it is found as a fact that the petition in this cause was filed on December 5, 1935, and that the answer was filed by the respondent on December 24, 1935, through its then attorney, Mr. Howell Greene, of Decatur, Georgia. It also appears of record that the motion now under consideration was not filed until March 25, 1936.

[1] There is on record in the office

## NORTH CAROLINA UTILITIES COMMISSION

of this Commission a schedule of the rates and charges for the various kinds and classes of service rendered by the respondent company in the territory which it serves, including the town of Bryson City. Different rates are charged for different classes of service, presumably based on the cost of rendering the particular kind of service, with an amount over and above the cost to render a fair return to the respondent company on each particular class of service. The composite revenue derived from all classes of service is presumed to produce a fair return and no more than a fair return upon a fair and reasonable value of all the properties used and useful, which are necessary to render adequate service, after deducting a reasonable expense for the administration and maintenance and a fair amount to cover depreciation of the properties from all causes.

The respondent has in its possession, or should have, a complete and detailed inventory of the costs of all its properties, both historical and present costs; it knows exactly what its operating cost is; from years of experience it should know how this operating cost should be allocated to its various classes of customers; it knows definitely what revenue it receives from each class of customers; it claims to know the rapidity of depreciation of each and several of its kinds of properties; it has a record of the current maintenance cost of its properties; and it knows what it pays to its officials and employees in the conduct of its business. All of these matters heretofore enumerated are peculiarly within the knowledge of the respondent company and are matters

about which the petitioner could not be expected to have exact and detailed information. The only information that the petitioner could be reasonably expected to have would be the rates which it pays for the services rendered by the respondent.

In the petition it is alleged that the petitioner believes that the rates charged are too high for the services rendered and that the same are unfair, unreasonable, and unjustly discriminatory, following the wording of the statute.

The respondent contends that such an allegation is merely a conclusion and defective both in common law and under the Code, for the reason that it does not allege wherein and how the rates charged by the respondent are unfair, unreasonable, and unjustly discriminatory. The Commission is advertent to the line of decisions of our supreme court which hold that a complaint which merely states a conclusion and not the facts from which that conclusion is derived is deficient, and it has carefully studied the decision in the case of *Hartsfield v. Bryan* (1919) 177 N. C. 166, 98 S. E. 379, cited by the respondent; *Moore v. Hobbs* (1878) 79 N. C. 535; *Lassiter v. Roper* (1894) 114 N. C. 17, 18 S. E. 946; *Rountree v. Brinson* (1887) 98 N. C. 107, 3 S. E. 747, and others. In all of these decisions it appears that the complaint failed to allege facts, the knowledge of which was, or should have been, in the possession of the complainant. There can be no doubt but what the law requires that one, who brings a suit upon a debt, shall allege how the debt was incurred and that it is not sufficient merely to allege that it is due; neither is it sufficient to

allege that the cause of action is barred by the Statute of Limitations, without alleging when the cause of action accrued, in order that the court may determine whether the action is barred by computing the time from the facts alleged. Neither does the complainant state a cause of action which, as in the case of *Hartsfield v. Bryan*, *supra*, it is not alleged that the party bringing the action is the real party in interest.

The foregoing cases, however, are easily distinguishable from another line of decisions of our supreme court, in which it has been held that a cause of action is not defective for the reason that it fails to state in detail facts peculiarly within the knowledge of the adverse party and that when it appears that where the absence of said detailed facts are complained of and a bill of particulars is demanded, the trial judge, in his discretion, may refuse to require the furnishing of a bill of particulars, if in his discretion it appears that said details are matters peculiarly within the knowledge of the party requesting the bill of particulars and are such that cannot be, with any degree of accuracy, alleged in the complaint. *Bristol v. Carolina, C. & O. R. Co.* (1918) 175 N. C. 509, 95 S. E. 850. Customarily where there is doubt about the absolute facts, the allegation is made upon information and belief but, in the instant case, the petition would not have been strengthened had it been alleged, for illustration, upon information and belief, that the rate charged domestic customers was too high, that the administrative cost was excessive; that the amount set aside for maintenance was more than it should be; that the

reserve for depreciation more than covered the actual wear and tear of the property, *et cetera*. The petitioner has no definite knowledge as to these matters, but it does believe and alleges that, taking them altogether, the rates charged by the respondent are "unfair, unreasonable, and discriminatory" and asks that the rates be investigated and that the respondent be required to show and justify its various items of costs and reveal its profits.

The Commission is of the opinion that it would be a vain thing to attempt to require the petitioner to file a bill of particulars, which would be largely a guess, about matters which the respondent has definite information.

Furthermore, the respondent cannot now hardly be heard to say, three months after it had filed a rather lengthy answer to the petition that the allegations of the petition are not sufficiently clear for the respondent to understand. The proper time to have raised these questions was before the filing of the answer.

[2] Considering that part of the respondent's motion, which asks that § 5 of the petition be stricken out as immaterial and improper, the Commission is of the opinion that it is immaterial and improper to either allege or consider, in determining what are fair rates of the respondent company, what reductions have been made by other utilities. The rates of each utility must be determined upon the valuations of the properties, the costs of operation, and the revenues received from and by that particular utility, without regard to what other utilities are charging.

## NORTH CAROLINA UTILITIES COMMISSION

Wherefore it is *ordered*: First. That the respondent's motion to require the petitioner to file a bill of particulars is denied.

Second. That the respondent's motion asking that the allegation 5 of the petition be stricken out, is allowed.

Third. That this case be set for

hearing on the 17th day of June, 1936, at 10 o'clock A. M., in the city of Raleigh, at the office of the Utilities Commissioner, for a full investigation of the present rates and charges of said utility and the justification therefor, in order that it may be determined whether the petitioner is entitled to a reduction in said rates.

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## CALIFORNIA RAILROAD COMMISSION

### City of Los Angeles v. Southern California Telephone Company

(Decision No. 28764, Case No. 3800.)

#### *Rates, § 209 — Unit for rate making — Telephone company.*

1. Matters respecting the value of the properties and the results of operation, on complaint against rates for telephone service in a city exchange, were held to be best analyzed and conclusions and findings reached from a consideration of the figures for the city extended area, including certain suburbs, which the company stated was the smallest divisible operating unit, as against a contention by the company that the case should be decided on the basis of company-wide operations and a contention by the city that only the rates in issue were those in the particular exchange, p. 257.

#### *Return, § 81 — Reasonableness as a whole — Rates in profitable exchange.*

2. The amount of reduction in rates at a telephone exchange which is the high earning portion of the company's system should as a matter of equitable consideration be tempered by a consideration of the investment structure of the entire company and other factors so that reasonable over-all earnings will prevail, p. 257.

#### *Apportionment, § 7 — Telephone business — Station-to-station methods.*

3. Station-to-station separation of property, revenue, and expense of a telephone company, rather than board-to-board separation, should be adhered to as representing the most reasonable procedure for measuring not only interstate and intrastate earnings but exchange and toll earnings, in view of past Commission policies, expressions of courts, and sound reason, p. 259.

#### *Valuation, § 27 — Rate base — Measures of value.*

4. The cost of property construction, the present cost as compared with the original, and all other evidence dealing with the fair value of properties as a going concern were considered in fixing telephone rates, p. 260.

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*Valuation, § 224 — Construction work in progress.*

5. Plant construction under way should not be included in the property base, since interest during construction is charged until the property is complete and ready for operation, p. 261.

*Valuation, § 215 — Lands and buildings for future use.*

6. Lands and buildings acquired in good faith with the employment of reasonable judgment by the management, which plans to make use of the property in the future, should be included in the rate base, p. 261.

*Evidence, § 9 — Judicial notice — Price levels.*

7. Judicial notice must be taken of the fact that late in 1929 there occurred a great collapse of values of all classes of property, and that the depression then commenced progressively became greater, which resulted in much lower levels of prices and values that at least as early as 1933 were to be regarded not as temporary but as at least relatively permanent, p. 265.

*Valuation, § 347 — Going value — Development costs — Charges to other accounts.*

8. So far as the cost of creating a going value is in the capital accounts or has been absorbed in the current cost of service it should not be allowed again as an additive sum in developing a property base, p. 268.

*Depreciation, § 26 — Annual allowance — Effect of past accruals.*

9. A claim for a certain percentage for annual depreciation expense is excessive when, by using such percentage, the past accrued depreciation equals an amount higher than does the depreciation reserve, it appearing that the reserve amounts to nearly three times the company's estimate of accrued depreciation and is admittedly adequate, p. 271.

*Valuation, § 101 — Accrued depreciation — Observation method — Condition per cent.*

10. An estimate of existing depreciation must be substantially modified when based upon condition per cent as disclosed by inspection and observation, almost completely ignoring functional causes of depreciation, p. 273.

*Depreciation, § 32 — Sinking-fund method.*

11. Conflicts and inconsistencies in rate cases with respect to annual depreciation charges and reserves and the accrued depreciation may be avoided by the use of the sinking-fund method, p. 275.

*Valuation, § 90 — Accrued depreciation — Effect of using sinking-fund method.*

12. No estimate of the highly controversial issue of accrued depreciation is needed when the sinking-fund method is used, the undepreciated property value being used as the base, p. 275.

*Return, § 35 — Reasonableness — Economic conditions.*

13. The Commission, in fixing rates, is compelled to recognize the great changes occurring during a period of depression through which the nation has been passing, not only in property values but in reasonable return on invested capital, p. 278.

*Return, § 26 — Reasonableness — Cost of capital funds.*

14. The Commission should not fail to observe the sharp decline which has occurred in the cost of capital funds to public utilities, as disclosed in its own decisions authorizing the issuance of securities, in determining the reasonableness of return, p. 278.

## CALIFORNIA RAILROAD COMMISSION

### *Return, § 111 — Telephone company.*

15. Rates of a telephone company in a municipal extended area were reduced so as to leave an earning of not less than 6.8 per cent upon the fair value of the property, consideration being given to the investment structure of the entire property and to the earnings thereon in low earning territory outside of the district and not involved in the proceeding, p. 279.

### *Discrimination, § 32 — Localities — Costs.*

16. Cost is not the sole criterion of the spreading of rates, as it is impossible to bring about a situation where every class of service and every area contribute ratably to the earnings of a large utility, p. 282.

(CARR, Commissioner, concurs.)

[April 27, 1936.]

### **C**OMPLAINT by municipality against telephone rates; rate reduction ordered.

APPEARANCES: Ray L. Chesebro, City Attorney, Carl I. Wheat, Public Utilities Counsel, and Milford Springer, Deputy City Attorney, for the city of Los Angeles; Oscar Lawler, C. E. Fleager, Jack Hardy, and Arthur T. George, for the Southern California Telephone Company; P. A. Young, for the Southern California Hotel Men's Association; Loren A. Butts, for Down Town Department Stores, Broadway Department Store, Bullock's Inc., J. A. Robinson Company, Barker Brothers and the May Company; S. M. Haskins and Woodward M. Taylor, for the city of San Marino; H. P. Huls, Leonard A. Diether and Robert Wanamaker, for the city of Pasadena; Richard C. Waltz and C. Curtis Smith, for the city of Beverly Hills; John C. Hayes, for the Communities of the East San Fernando Valley; O. R. Cline, for the city of Long Beach; Charles T. Rippy, for the city of Torrance; E. R. Hurst, for Monte Mar Vista Property Owners Protective Association; Horace E. Vedder, City Attorney, for the city of South Pasadena; H. R. Brashear, for

Los Angeles Chamber of Commerce; Albert Launer, City Attorney of Fullerton, appearing as Secretary of the Orange County League of Municipalities.

CARR, Commissioner: On March 9, 1934, the city of Los Angeles filed its complaint against the Southern California Telephone Company alleging that rates in the Los Angeles exchange (the area of this exchange lies generally within the city of Los Angeles) and between stations in that exchange and stations in exchanges and points exterior thereto were unreasonable and excessive. The company, on April 9th, answered the complaint. It denied that the rates were unreasonable and sought to tie the rates attacked into the general rate structure of the utility. Reference was made to the decision of the Commission in *Beverly Hills v. Southern California Teleph. Co.* (1934) 39 Cal. R. C. R. 172, in which various service changes were ordered. It was alleged that the carrying out of this order would be burdensome to the company

## CITY OF LOS ANGELES v. SOUTHERN CALIFORNIA TELEPH. CO.

and it was urged that the pending case should be dismissed so that the company should be unembarrassed in carrying out the provisions of the order. An amended answer was filed on January 23, 1935, in which the original answer was somewhat amplified but in which it was alleged that the system rates of the company were inadequate as to yield. No authority to increase any rates, however, was sought.

At the initial hearing on February 20, 1935, there was presented in evidence a comprehensive report by Mr. E. F. McNaughton, of the engineering staff of the Commission (now director of research), covering the operations of the defendant company in its entirety, as well as its operations in various exchanges and departments.<sup>1</sup> This report tended to show that the utility's earnings in its Los Angeles exchange were at a substantially higher level than in the remainder of its territory. Thereupon the complainant, consent of the Commission having been obtained, amended its complaint to charge that the rates in the Los Angeles exchange were not only unreasonable but were unjustly discriminatory. On March 22, 1935, answer was filed to the complaint as thus amended. The new issue of discrimination was controverted. The answer otherwise followed largely

along the lines of the first amended answer.

After February 20, 1935, hearings in the case proceeded regularly until October 25th when the evidence was closed. In all, twenty-seven days were occupied in hearings.<sup>2</sup> The transcript of testimony occupies 3,149 pages. There were 144 exhibits presented. The record developed was unusually complete.<sup>3</sup> Since the close of evidence briefs have been filed. The case was submitted on December 16, 1935.

It seems logical to review and consider the evidence in several parts as follows:

I. Historical; II. Rate-fixing area; III. Separation studies; IV. Property value; V. Operating revenues and expenses; VI. Accrued depreciation and depreciation expense; VII. Future conditions; VIII. Rate reduction indicated; IX. Spread of rate reduction; X. Discrimination.

### I

#### *Historical*

On May 1, 1917, the newly organized Southern California Telephone Company took over the property of the old Home Telephone & Telegraph Company of Los Angeles, as well as the Los Angeles portion of the system of the Pacific Telephone and Telegraph Company. See *Re Southern*

<sup>1</sup> Various members of the Commission's engineering and accounting staff participated in developing this report. Among these were Messrs. P. E. Dufour, W. B. Wessels, M. M. Barnes, E. P. McAuliffe, and Theo. Stein.

<sup>2</sup> Hearings were had on February 20th and 21st; on April 2nd, 3rd, 5th, and 30th; on May 1st and 2nd; on June 18th, 19th, 20th, 21st, 25th, 26th, 27th, and 28th; on July 2nd; on August 27th, 28th, 29th, and 30th; on September 13th, and on October 15th, 22nd, 23rd, 24th, and 25th.

<sup>3</sup> Toward the close of the hearings there was presented as having a possible bearing upon the issues, a summary outline of the over-all operating results of the Pacific System in the state of California, segregated as between operations carried on by the Pacific Telephone and Telegraph Company in the northern portion of the state and those carried on by its subsidiary, Southern California Telephone Company.

## CALIFORNIA RAILROAD COMMISSION

California Teleph. Co. 11 Cal. R. C. R. 806, P.U.R.1917A, 989.

On June 1, 1930, the Southern California Telephone Company acquired the remaining properties of the Pacific Telephone and Telegraph Company in southern California, including the properties of certain subsidiary companies. Re Southern California Teleph. Co. 34 Cal. R. C. R. 584. Its investment was thereby increased over 60 per cent, and its number of stations some 50 per cent, the larger percentage increase in investment being due to the toll properties taken over.

The Southern California Telephone Company is one of the associated companies of the Bell System. All of its stock is owned by the Pacific Telephone and Telegraph Company, which in turn is controlled by the American Telephone and Telegraph Company<sup>4</sup>

### *Rate history.*

When the Los Angeles consolidation of duplicate telephone systems was effected in 1917, Southern California Telephone Company agreed that it would not seek an increase in rates for a period of five years ending November 4, 1921. Re Southern California Teleph. Co. *supra*; *Id.* (1917) 13 Cal. R. C. R. 113. Shortly after this stipulation was made, the United States entered the World War. World wide economic changes occurred. Costs of almost every nature increased. Adherence to the stipulation became burdensome to the company and an application was filed with the Commission, as a re-

sult of which increases were authorized by order of date December 14, 1921, effective after the expiration of the 5-year period. Re Southern California Teleph. Co. 20 Cal. R. C. R. 981, P.U.R.1922C, 97. On rehearing, some changes were made from the original order, the changes dealing mostly with service matters. Re Southern California Teleph. Co. (1922) 21 Cal. R. C. R. 274.

On January 15, 1922, pursuant to authorization of the Commission, a partial separate exchange in Culver City was established from a portion of the Los Angeles exchange, Re Southern California Teleph. Co. (1921) 20 Cal. R. C. R. 568, P.U.R.1922A, 720, which was later converted into a complete separate exchange. Re Southern California Teleph. Co. 24 Cal. R. C. R. 958, P.U.R.1924E, 457. Pursuant to the order last mentioned the Montebello territory was similarly, in August, 1924, made into a separate exchange.

The company, feeling that the increases in its rates authorized by the 1921 decision were inadequate, on December 29, 1923, applied for further increases, urging that they be effected through the introduction of a partial measured service in certain portions of its territory. Increases were approved to be effected February 1, 1925, in part through a limited introduction of measured service. Re Southern California Teleph. Co. (1924) 25 Cal. R. C. R. 721 (P.U.R.1925C, 627). In 1926 an extension of the measured service plan was authorized. Re Southern California Teleph. Co. 27 Cal. R. C. R. 409. At this time, also, the message rates were reduced.

By 1929, the company's earning position had improved to a point

<sup>4</sup>The Pacific Telephone and Telegraph Company operates in California, Oregon, Washington, Nevada, and Idaho, either directly or through completely controlled subsidiaries, such as the Southern California Telephone Company.

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somewhat better than that usually deemed reasonable by the Commission. A proceeding was instituted on the Commission's own motion and rate changes were ordered effecting a reduction in the company's revenue, based on 1929 operations, of \$2,300,000 per annum. Re Southern California Teleph. Co. 33 Cal. R. C. R. 812, P.U.R.1929E, 610.<sup>5</sup>

Various complaints, formal and informal, respecting service conditions in the Los Angeles area having reached the Commission, there was instituted in January, 1933, a general investigation into these conditions. After several hearings a decision was made on January 10, 1934, by which the Beverly Hills area was ordered incorporated into a separate exchange and excluded from the Los Angeles exchange, and by which exchanges adjoining the Los Angeles exchange were given certain privileges for service between such exchanges and adjoining areas in the Los Angeles exchange. Los Angeles v. Southern California Teleph Co. 39 Cal. R. C. R. 172. This order also had the effect of adjusting some telephone charges.<sup>6</sup> Rates in the outside exchanges generally have continued on the basis and at the level established in 1919, except as minor alterations have been made from time to time by the utility and except as rates have been authorized for newly established exchanges.

### *Growth of company.*

The growth of the company as a corporation, as measured by plant investment, number of stations and operating revenue, is shown in the following Table I: [Table omitted.]

The sharp increase in investment, stations, and revenue shown to have occurred in 1930, is attributable largely to the acquisition in that year of the telephone property in southern California theretofore owned by the Pacific Telephone and Telegraph Company and its subsidiaries.

### *Earning history.*

The earning history of the company was presented in evidence by the Commission's staff and is displayed in the following Table II: [Table omitted.]

Table III gives the earning history of all of the properties owned or controlled by the Pacific Telephone and Telegraph Company in the state of California for the years 1926 to 1934, inclusive, on the same basis as used in Table II. (Over-all state figures for the period prior to 1926 are not in the record.) [Table omitted.]

## II

### *Rate-fixing Area*

[1, 2] The Southern California Telephone Company until 1930 served only the Los Angeles exchange territory and the territory comprised in the Culver City and Montebello exchanges.<sup>7</sup> The 1921 and

<sup>5</sup>Growth of business was such that the reduction related to 1930 business approximated \$2,600,000.

<sup>6</sup>As the hearings in the instant case proceeded, data became available to measure with substantial accuracy the financial effects upon the company of this order. Investment was increased about \$170,000. Over-all company annual revenue was decreased about \$212,000

a year, the decreases being larger in toll than in exchange revenue. Annual expenses were increased about \$84,000.

<sup>7</sup>These two exchanges are relatively unimportant, representing, prior to the 1930 consolidation, less than 2 per cent of the company's investment and contributing less than 1 per cent of its earnings.

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1924 rate cases, initiated by the company, involved charges to be paid by subscribers in the Los Angeles exchange. The company then urged this area as the proper rate-fixing unit without consideration of earnings either in southern California or in the state.<sup>8</sup> The present level of rates in the Los Angeles exchange is the result of two rate increases and one rate decrease, each having been effected in a proceeding involving the rates in the Los Angeles area.

The city urges that the only rates here in issue as unreasonable are the rates applicable to subscribers in the Los Angeles exchange and with a persuasive historical background and considerable equity advances the claim that the Los Angeles exchange is the proper rate-fixing unit.<sup>9</sup> The company, however, takes the position that the complaint "challenged the reasonableness of the rates of the entire company and the case should be decided on the basis of the operations of the entire company" and, over the objection of the city, adduced evidence both as to company-wide and Los Angeles extended area operations and earnings.

On July 29, 1934, the Los Angeles extended area plan<sup>10</sup> became effective.

<sup>8</sup> See *Re Southern California Teleph. Co.* (1924) 25 Cal. R. C. R. 721, 738 (P.U.R. 1925C, 627) where the company's contention in this respect was referred to.

<sup>9</sup> The assurances by company counsel in the 1930 consolidation case are convincing that an area smaller than the now Southern California Telephone Company system may properly be viewed as a rate-fixing unit.

<sup>10</sup> The Los Angeles extended area includes the dominant Los Angeles exchange and the contiguous exchanges of Alhambra, Glendale, Pasadena, Montebello, Beverly Hills, Compton-Hynes-Gardena, Culver City, North Hollywood, Hawthorne, and Inglewood and portions of Burbank and Downey exchanges.

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Coincidentally the Beverly Hills section, formerly in the Los Angeles exchange, was established as a separate exchange, and the South Pasadena dual service area was divided between Los Angeles exchange and Pasadena exchange.

The status of the Los Angeles exchange since the occurrence of these changes is a matter of dispute between the company and the city. The company urges that it no longer exists except as a rate quotation area. The city contends that it exists as a separate exchange for rate-fixing purposes.

Except for the Beverly Hills and South Pasadena modifications, the same subscribers exist in the Los Angeles exchange as before the effectiveness of the extended area plan except as modified by the station movement ever going on. These subscribers pay the same rates as formerly. Those in the periphery area of the exchange are the beneficiaries of certain service facilities they did not formerly enjoy. The subscribers in the exchanges adjacent to the Los Angeles exchange also enjoy certain services not theretofore extended.<sup>11</sup>

Thus it appears that historically the area represented by the present Los

<sup>11</sup> Taking subscribers in the adjacent Pasadena exchange, for example, the extended area plan accorded them the option of paying extended service rates (somewhat higher than local rates) for which they could communicate without the former toll charge with subscribers in adjoining fringe areas of the Los Angeles exchange as well as in the adjoining exchanges of Glendale and Alhambra. Subscribers in the periphery areas of the Los Angeles exchange were accorded the privilege without added charge of communicating with all subscribers whether extended area or local in adjoining exchanges outside of the Los Angeles area. Formerly there was a toll charge for this service.

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Angeles exchange (except for minor modifications) has been given separate consideration and used as a rate-fixing area. The plant costs, revenues, and expenses and other data as to this area have been readily ascertained from the books and records of the company up to July 29, 1934.

The rates clearly under attack are the rates for service in the Los Angeles exchange. However, the change in operating methods incident to the extended area plan makes it difficult now to determine Los Angeles exchange earnings in a precise manner. As a practical matter, therefore, in determining the issues of value and return for the Los Angeles exchange, matters respecting the value of the properties and the results of operation may best be analyzed and conclusions and findings reached from a consideration of the figures for the Los Angeles extended area, which the company states is the smallest divisible operating unit.

It will become apparent that the Los Angeles extended area, of which the Los Angeles exchange is the dominant part, is the high earning portion of the company's system. The amount of reduction in the Los Angeles exchange rates as a matter of equitable consideration should be tempered by a consideration of the investment structure of the entire company and other factors so that reasonable over-all earnings will prevail. This represents an equity consideration in favor of the utility and patrons in the less lucrative territory.

### III

#### *Separation Studies*

- [3] Included in the company's rev-

enue are not only payments made by subscribers for exchange service but divisions of revenue on account of interstate and intrastate toll service. Various portions of the plant are used in rendering these several services which contribute to revenue. Hence, in order to determine over-all intrastate earnings, over-all exchange earnings, or earnings by exchanges or groups of exchanges, segregations and allocations must be made as to property, revenue, and expense. Two methods or plans have been used for his purpose: the "board to board" and the "station to station." The former method, long advocated by Bell System companies, was disapproved in *Smith v. Illinois Bell Teleph. Co.* (1930) 282 U. S. 133, 75 L. ed. 255, P.U.R.1931A, 1, 51 S. Ct. 65, the latter method being there indicated to be the proper one.

Following the Supreme Court decision last specified, the company developed a station-to-station allocation which produced almost identical results as the disapproved board-to-board plan. These studies were introduced as to intrastate, Los Angeles exchange, and Los Angeles extended area.

Mr. McNaughton presented in evidence two separation studies, one based on the company's board-to-board definition, and a station-to-station study in harmony with the views expressed by the United States Supreme Court. These studies are the only separation studies in the record which are complete as to the earnings of the various exchanges.

The results of the company's operations by exchanges based on the station-to-station separation study, some-

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what condensed for the sake of brevity, are as follows, the figures being on the historical cost-sinking-fund depreciation basis for the twelve months ending June 30, 1934: [Table omitted.]

None of the various suggested bases of allocation throw serious doubt upon the substantial correctness of the relationship between the earnings of the Los Angeles exchange and of the various other exchanges indicated by the foregoing table. In other words, the various plans of segregation influence the rates of return by exchanges in substantially the same degree. These relationships are displayed by the following Table IV [table omitted], showing the results of the studies made both by the company and the Commission's staff on the various property bases for various operating areas and for the two methods of separation. The company's showings on investment and fair value are based on the testimony of Mr. C. E. Fleager, first vice president of the company.

The station-to-station separation method employed by the Commission's engineer was basically that used by the Commission in the fixation of Los Angeles exchange rates in 1924 in *Re Southern California Teleph. Co.* 25 Cal. R. C. R. 721 (P.U.R.1925C, 627) the decision which was referred to by the Supreme Court in the Illinois Bell Case, *supra*. In view of the past policy of the Commission, the expressions of the courts and sound reason, the station-to-station separation on the basis followed by the Commission's staff should be adhered to as representing the most reasonable procedure for measuring

not only interstate and intrastate earnings but exchange and toll earnings.

### IV

#### *Property Value*

[4] The cost of construction of the property, the present cost as compared with the original, and all other evidence dealing with the fair value of the properties as a going concern except for the element of accrued depreciation in the properties are considered herein. The accrued depreciation is intimately related to the allowance for depreciation expense, and it seems appropriate to discuss this important subject in a succeeding section.

In considering property values, the objective is the determination of the fair value of the property devoted to the intra-Los Angeles extended area operations. However, as much of the evidence was introduced for the entire company operations, it is convenient to analyze the evidence both as to company-wide and Los Angeles extended area operations. The relationships between these areas are quite consistent.

#### *The historical cost of properties.*

The record indicates that the company's records are complete and accurate, and no substantial disagreement as to the historical cost of the properties developed during the hearings. The telephone plant accounts representing the cost of the properties in service as of December 31, 1934, totaled as follows:

Item	Los Angeles Extended Area	Entire Company
Telephone plant in service .....	\$116,953,000	\$162,477,000

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It will be noted that the Los Angeles extended area bears a relation of 72 per cent to the total company plant accounts.

With these figures as a base, the Commission's engineers have computed the historical cost rate base, after making certain adjustments, as follows:

Item	Los Angeles Extended Area	Entire Company
Telephone plant in service .....	\$116,953,000	\$162,477,000
<i>Adjustments</i>		
Nonoperative property .....	179,000	179,000
Depreciation on motor vehicles .....	687,000	890,000
Adjustment of lands to market value .....	650,000	650,000
San Francisco administration building .....	326,000	386,000
Working cash .....	944,000	1,321,000
Materials and supplies (12-31-34) .....	1,331,000	1,629,000
Total .....	\$118,038,000	\$164,094,000

Figures in italics are red.

The company, on the other hand, starting from the same basic figures for plant arrives at the following total from a cost standpoint:

Item	Los Angeles Extended Area	Entire Company
Telephone plant in service .....	\$116,953,000	\$162,477,000
Construction work in progress .....	297,000	373,000
Cash .....	472,000	576,000
Working funds .....	23,000	25,000
Due from customers and agents .....	1,949,000	2,360,000
Materials and supplies (Average 1934) .....	1,588,000	2,008,000
San Francisco administration building .....	326,000	400,000
Total .....	\$121,608,000	\$168,219,000

The differences between the studies of the Commission's staff and the company center to a large extent on the allowance for working cash and materials and supplies, the company being higher by an amount of \$2,019,000. Here, as in the case also of the reproduction cost, the working cash allowance of the Commission's staff is well supported and is in substantial excess of the actual cash on hand. The company includes in full net amounts due it by subscribers, but

fails to deduct average amounts which it currently owes to its employees and other parties. There is no issue on materials and supplies except that the company's figure is an average for 1934, while the figures shown in the statement of the Commission's staff are as of December 31, 1934, being the more recent experience.

The deduction of the accrued depreciation for motor vehicles is necessary for the reason that part of the depreciation has been charged into plant

accounts and the remainder into operating expenses. Without this deduction there is a duplication of charges. However, later figures indicate the amount to be deducted should be \$770,000 rather than \$890,000.

[5, 6] Construction work in progress includes two different classes of property: (a) actual plant construction under way, and (b) lands held for future telephone use, the money value of the two items being approximately equal. As to the first item,

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interest during construction is charged until the property is complete and ready for operation. Accordingly, such construction work should not be included in the rate base unless a corresponding interest revenue is included in the operating revenues. Substantially the same result will accrue in either case, and it seems preferable not to include the amount in the property base.

The lands held for future use and the lands and buildings listed as non-operative by the Commission's staff were all acquired in good faith and may be used in the future. It is evident in the particular cases involved that reasonable judgment was employed by the management and that it plans to make use of the property in the future. While the property is not strictly in service, these lands and buildings will be considered in the findings as to property value.<sup>12</sup>

The historical costs above referred to include the amounts actually paid for materials including the amounts paid Western Electric Company, a subsidiary of the American Telephone and Telegraph Company, for telephone equipment of its own manufacture. While no question is raised in this proceeding as to the validity and reasonableness of the costs actually incurred historically through purchase of telephone apparatus from an affiliated manufacturing company, a serious question arises as to the validity of the application of the present

prices of the Western Electric Company, which have been raised over 30 per cent since 1929, in considering the issues as to the reproduction cost of the property. This question, however, is discussed later.

### *The present costs compared with historical costs.*

The evidence as to the present as compared with the original cost of construction is in the form of three principal sources:

1. An estimate prepared by the company for the purposes of this case of the cost to reproduce new its present properties, under the assumption that all conditions were identical with those on December 31, 1934, except that the telephone company and its telephone plant were not in existence. This estimate was based upon a 6-year construction program with spot prices as of December 31, 1934.

2. A study of the city's engineer of the company's estimated cost of reproduction.

3. The company's estimate of reproduction cost new prepared for use in arriving at value for taxation purposes.

### *The company's estimate of reproduction cost new.*

The company's estimate of reproduction cost new prepared for this proceeding by Messrs. H. W. Hitchcock and D. L. Scoville, engineers of

<sup>12</sup> Mr. Fry, telephone and telegraph engineer of the Commission, testified that the plant of the company at the end of 1934 was from 9 to 15 per cent larger than necessary to care for its then subscribers. In discussing the reproduction cost this testimony

has an important bearing. However, as the trend of business is definitely upward, it seems more reasonable to find a value for the property based upon its ability to serve a greater number of subscribers than it is at present serving.

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the company, as of December 31, 1934, is in the following amounts:

In the historical costs, interest and taxes during construction are included

Item	Los Angeles Extended Area	Entire Company
Telephone plant in service .....	\$128,116,000	\$177,593,000
Construction work in progress .....	249,000	324,000
Cash .....	472,000	576,000
Working funds .....	23,000	25,000
Due customers and agents .....	1,949,000	2,360,000
Materials and supplies .....	1,588,000	2,008,000
San Francisco administration building .....	326,000	400,000
Total .....	\$132,723,000	\$183,286,000

Here the Los Angeles extended area is 72 per cent of the entire company.

All of the above items except telephone plant in service are the same as discussed under historical cost, so that with one exception the same conclusions will apply. In the case of construction work in progress, a lesser figure appears in the reproduction cost because of the appraisal of land held for future use.

It is appropriate therefore, to pass to a detail analysis of the item "Telephone plant in service." A comparison of these reproduction costs by accounts with the historical costs for the entire company follows:

in the accounts. The company's reproduction cost estimate includes some \$7,800,000 for these items, and to make proper comparisons, the latter has been spread to accounts except for a minor amount.

## The city's study.

The city of Los Angeles, through Mr. A. V. Guillou, an engineer for the city of Los Angeles, presented testimony respecting the company's estimate of cost to reproduce its entire properties. Criticisms of the estimate were grouped into three categories as follows:

1. As a matter of purely hypothetical reproduction, termed visualized reproduction, the following items in-

Account	Historical Cost	Reproduction Cost New (Rate Case)	Ratio to Book Cost
Organization .....	.....	\$443,000	..
Franchises .....	\$4,000	67,000	16.4
Right of way .....	319,000	366,000	1.1
Land .....	3,338,000	2,994,000	.9
Buildings .....	12,954,000	12,987,000	1.0
Central office equipment .....	47,662,000	53,540,000	1.1
Station equipment .....	22,941,000	27,017,000	1.2
Outside plant .....	72,419,000	77,141,000	1.1
Furniture and office equipment .....	1,540,000	1,372,000	.9
Vehicles and other work equipment .....	1,300,000	1,448,000	1.1
Miscellaneous interest and taxes during construction .....	.....	218,000	..
Telephone plant in service .....	\$162,477,000	\$177,593,000	1.1

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cluded in the company's reproduction cost were urged as being entirely improper:

- |   |             |
|---|-------------|
| (a) The inclusion of a theoretical cost of cutting and replacing pavement not historically cut or replaced, which, with an addition for omissions and contingencies and interest during construction on this amounts to | \$3,171,400 |
| (b) The inclusion of station installations and drop wires which have been abandoned and written out of capital but which may be reused .....  | 1,033,000   |
| (c) The inclusion of disconnected stations left in premises .....   | 1,623,000   |
| (d) The inclusion of land and buildings held for future use ..  | 401,300     |
| (e) The inclusion of overheads on land .....  | 317,000     |
| (f) The inclusion of organization and franchise costs greater than incurred .....   | 405,500     |

2. The use by the company of spot material prices as of December 31, 1934, was criticized. Had telephone apparatus prices as of the first of 1930 and other prices as of December 31, 1934, been used, the company's figure would have been reduced \$13,000,000. Had average prices of the five years 1930 to 1934 been used, the company's figure would be reduced by \$7,000,000.

3. The company's unit costs (exclusive of material prices) developed from its recent construction experience were criticized because they were adjusted to represent what was termed difficulty factors. Had actual experience without the adjustments been used, the company's total figure, according to the city's witness, would be less by \$13,700,000.

The city's contention is that from an appraisal of the evidence it believes the Commission would be warranted in a reduction of the company's estimate of \$183,000,000 to approximately \$155,000,000.

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### *Reproduction cost new for taxation purposes.*

The company, in connection with the new ad valorem taxation of public utilities, made certain estimates of reproduction cost new as of March 31, 1934. These estimates reflect the result of trending historical costs to the price level of the year 1933. The figures reached were substantially less than those in the reproduction new estimate made for the rate case, being about 91 per cent of the book cost.

In the preparation of such an estimate, the base figures are the historical costs which include all overheads and interest and taxes paid during construction, together with the actual experience of the company in building its system on a historical construction program.<sup>13</sup>

The reproduction estimate made in this manner shows that price levels prevailing in 1933 were at a substantially lower level than the average costs as reflected on the books of the company.

Subsequent discussion will indicate that substantial weight may be given the price levels used in this study in viewing the future in this particular case because of the peculiar incidence of prices of Western Electric Company for telephone apparatus of its own manufacture.

<sup>13</sup> Mr. Blanck, assistant vice president, when interrogated as to some of the bases he had used in constructing a valuation for purposes of taxation, testified:

*Mr. Wheat:* I also understood you to say that you did not load your figures for so-called difficulty factors in reproduction? *A.* That is right, nor any of the general superintendence or developing of plans and all that sort of thing, engineering and all that sort of thing, which would have to go under reproduction cost, which would cost you more than the way we had built the property.

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[7] This study likewise indicates, as the Supreme Court has recognized in its recent decisions, that price levels since 1929 have dropped to a distinctly lower plateau. See *Atchison, T. & S. F. R. Co. v. United States* (1932) 284 U. S. 248, 76 L. ed. 273, 52 S. Ct. 146; *Los Angeles Gas & E. Corp. v. California R. Commission*, 289 U. S. 287, 77 L. ed. 1180, P.U.R.1933C, 229, 53 S. Ct. 637; *Central Kentucky Nat. Gas Co. v. Kentucky R. Commission* (1933) 290 U. S. 264, 78 L. ed. 307, 3 P.U.R.(N.S.) 384, 54 S. Ct. 154; *Clark's Ferry Bridge Co. v. Pennsylvania Pub. Service Commission* (1934) 291 U. S. 227, 78 L. ed. 767, 2 P.U.R.(N.S.) 225, 54 S. Ct. 427. As said in *Great Northern R. Co. Weeks* (1936) 297 U. S. 135, 80 L. ed. —, 56 S. Ct. 426, 433, 434: "Judicial notice must be taken of the fact that late in 1929 there occurred a great collapse of values of all classes of property—railroads, other utilities, commodities and securities, and that the depression than commenced progressively became greater." This collapse, it was said, "resulted in much lower levels of prices and values which at least as early as 1933 were to be regarded not as temporary but as at least relatively permanent."

## Lands.

The company in its reproduction cost estimate for the rate case accepted Mr. McAuliffe's land appraisal for Los Angeles and Pasadena exchanges, together with book costs for the remaining properties, this being the basis used by the Commission's staff in Exhibit No. 1. In addition the company added \$250 to each parcel for surveying, recording, and title in-

surance. There has also been added taxes during construction in the amount of \$55,000 and interest during construction of \$255,000, these amounts being superimposed by the company on the present market value of the lands as appraised.

## Buildings.

Of the 89 buildings owned by the company only 16 were built prior to 1920. The reproduction cost of the buildings before adding interest and taxes during construction was found by the company to be somewhat less than the actual historical cost. Under the construction program outlined by the company in its estimate, \$168,000 has been added for taxes during construction and \$773,000 for interest during construction. For many years the company has included interest and taxes during construction in its plant costs, yet the actual total amounts of interest during construction were found to be only \$64,000 as of January 1, 1933. By such additional interest and tax charges the company's reproduction cost under a theoretical construction program for buildings is brought to a figure higher than the books.

## Central office equipment.

Central office equipment presents a much more difficult problem. The prices for central office equipment are not free prices. This equipment is virtually all purchased from the Western Electric Company and the prices have been substantially increased during the depression due to the falling off of Western Electric business.<sup>14</sup> In

<sup>14</sup> The plant investment in Bell companies is some \$4,250,000,000. In adjusting this to value, fluctuations in the level of Western Electric prices play an important part. Hence

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analyzing this account it is helpful to compare the book cost with the company's reproduction cost new estimate prepared for this case and with the reproduction cost estimate prepared for tax purposes. This is done in the following table: [Table omitted.]

### *Station equipment.*

The station equipment group likewise involves to a considerable extent the question of Western Electric prices and added interest during construction. The accompanying table shows the details of the accounts in this group: [Table omitted.]

In connection with station equipment, two additional problems arise. As telephone service is discontinued from time to time by subscribers, a certain portion of the plant is rendered idle, *i. e.*, the drop and block wires, station installation, and station apparatus. If the telephone is left in place it becomes a left-in disconnected station and the amounts of capital representing this investment remain in the capital account and therefore in the book cost. If the telephone is removed then the station apparatus, station installation and drop and block wires are written out of the capital accounts on the books. The company in its reproduction cost for rate case purposes has not only reproduced all of the property shown in the capital accounts, including left-in disconnected stations, but has added to this figure an amount representing the reproduction cost of a portion of the abandoned drop and block wires and station installations which have already

been written out of the capital account and charged to operating expenses.

### *Outside plant.*

The outside plant group includes pole lines, wire, cable, and conduit. The cost and reproduction costs of these accounts follow, including interest and taxes during construction in the appropriate accounts in all cases: [Table omitted.]

In the case of outside plant, although the material is largely purchased through the Western Electric Company, other suppliers are available and the trend of prices shows practically no change from the 1930 level and stands at about 78 compared with 100 in 1926. Consequently it is not surprising to find that where the historical costs have been trended, as is the case in the reproduction cost new estimate filed with the board of equalization, reproduction cost is materially lower than the books. If to this trended reproduction cost additional amounts of interest and taxes during construction and allowances for omissions and contingencies are added because of a hypothetical construction program rather than the actual construction program under which the property was built, it is still found that the reproduction cost is less for most accounts in this group than the historical cost. The price trend for this class of plant has been slightly upward since 1932.

In regard to underground conduit, here again the trended reproduction cost is less than the historical cost, but it will be noted that the reproduction cost rate case method is over 50 per cent higher than the historical cost. This is due somewhat to the inclusion

there is necessarily present a powerful self-interest which bears upon the level of these prices.

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of additional interest and taxes during construction and difficulty factors, but the principal factor accounting for the increase is the cost of paving over conduit which was not actually cut historically. This, according to the city's exhibit, alone accounts for some \$3,200,000.

#### Other accounts.

Furniture and office equipment under the company's reproduction cost estimate is \$1,372,000, or 89 per cent of the book cost of \$1,540,000, whereas motor vehicles are estimated by the company to cost on a reproduction basis \$1,448,000, or 111 per cent of the book cost of \$1,300,000.

There is also an item of miscellaneous interest and tax charges during construction of \$218,000. This includes such items as interest charges on organization expense, interest on cash and working funds, and interest and taxes on materials and supplies, etc.

#### Price levels.

In Mr. Guillou's study of price trends, it develops that the spot prices used by the company December 31, 1934, represent a 33 per cent increase over the Western Electric price levels of January 1, 1930,<sup>15</sup> for telephone apparatus of its own manufacture.

According to the testimony, changes in Western Electric prices are influenced, considerably at least, by the activity or inactivity of the asso-

ciated Bell companies. With a large volume of business prices tended downward and with a decrease in orders, as has been the case since 1930, prices have been raised substantially. The following table is of interest in connection with the price trends, the first price column indicating largely Western Electric manufactured equipment and the second, material largely purchased through the Western Electric where other suppliers are available:

As of Jan. 1st	Telephone Apparatus	Reminder of Material	Composite All Materials
1935 .....	100	78	89
1934 .....	94	78	85
1933 .....	82	75	78
1932 .....	81	75	78
1931 .....	81	79	80
1930 .....	75	91	84
1929 .....	83	89	86
1928 .....	89	89	89
1927 .....	96	94	95
1926 .....	100	100	100
1925 .....	102	102	102
1924 .....	109	100	105
1923 .....	107	98	102
1922 .....	112	90	100
Average 1930-35		85	79
			82

Note: "Telephone apparatus" includes central office equipment, private branch exchanges, and station apparatus.

It is of interest to note that while telephone apparatus prices had by January 1, 1935, been raised to the 1926 level, prices for the remainder of the material are still substantially below the level prevailing in that year.

Of the company's reproduction cost of some \$183,000,000, approximately

<sup>15</sup> A 10 per cent increase in Western Electric prices occurring in 1930 and other increases since that time have been the object of general criticism by Commissions and courts. Re Southwestern Bell Teleph. Co. (Okla. 1935) 9 P.U.R.(N.S.) 113, 122; Public Service Commission v. Southern Bell Teleph. & Teleg. Co. (La. 1935) 8 P.U.R.(N.S.) 1, 8; Re Southern Bell Teleph. & Teleg. Co. (N. C. 1934) 7 P.U.R.(N.S.) 21,

26; Re Wisconsin Teleph. Co. (Wis. 1934) 6 P.U.R.(N.S.) 389, 420; Re Chesapeake & P. Teleph. Co. (D. C. 1934) 4 P.U.R.(N.S.) 346, 358; Chesapeake & P. Teleph. Co. v. West (1934) 7 F. Supp. 214, 3 P.U.R.(N.S.) 241; Re Ohio Bell Teleph. Co. (Ohio 1934) 2 P.U.R.(N.S.) 113, 123; Re Chesapeake & P. Teleph. Co. (Md. 1933) 1 P.U.R.(N.S.) 346; Illinois Bell Teleph. Co. v. Gilbert, 3 F. Supp. 595, 603, P.U.R.1933E, 301.

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\$67,000,000 represents accounts influenced by the Western Electric Company's trend for telephone equipment at prices as of January 1, 1935. If these accounts had been priced on the basis of Western Electric Company's 1930 prices, the total reproduction cost for such accounts would have been \$54,000,000, a difference of some \$13,000,000. If average Western Electric prices during the period 1930 to 1935 had been employed, the telephone apparatus accounts would have totaled \$59,000,000. The remaining property priced at \$116,000,000, as of January 1, 1935, would have been priced at \$117,000,000, had it been priced at the average 1930 to 1935. If all accounts had been priced at average prices during this period the company's estimate would have been \$176,000,000 instead of \$183,000,000, all other elements of the company's reproduction cost new estimate except material prices being included.

### *Going value.*

[8] Mr. Fleager expressed the opinion that there is a going value of \$12,000,000 existing in the property of the Southern California Company. He premised this upon various statistical data descriptive of the property, its actual cost and estimated reproduction cost, its connection with a larger organization and with other companies and the nature of the territory served.<sup>10</sup> Of the \$12,000,000 estimate, he assigned \$8,000,000, or 66 $\frac{2}{3}$  per cent to the Los Angeles extended area, a percentage somewhat less than the relationship existing between these two areas as to historical cost and cost

of reproduction cost new. Mr. McNaughton testified "that those items which are generally considered as being included in going value have been included in our figures, as they were incurred, either in the capital cost or in the operating expense as recorded—cost of training personnel and cost of developing records and attaching the business." Although he testified that no segregation had been made, he stated that "I think we have recognized all of the costs which go to the development of those things generally included in going value."

The latest expressions of the Supreme Court are in line with obvious equity in indicating that so far as the cost of creating a going value is in the capital accounts or has been absorbed in the current cost of service it should not be allowed again as an additive sum in developing a property base. See *Dayton Power & Light Co. v. Ohio Pub. Utilities Commission* (1934) 292 U. S. 290, 78 L. ed. 1267, 3 P.U.R.(N.S.) 279, 54 S. Ct. 647; *Columbus Gas & Fuel Co. v. Ohio Pub. Utilities Commission* (1934) 292 U. S. 398, 78 L. ed. 1327, 4 P.U.R.(N.S.) 152, 54 S. Ct. 763, 91 A.L.R. 1403.

The evidence indicates the existence of a substantial going concern value in these properties, and in the findings to follow the fair value of the properties will include their value as a going and operating concern.

### *Fair value.*

As has been stated, the subject of depreciation has been reserved for later discussion. At this point it is appropriate to consider all of the evidence of value in the record except

<sup>10</sup> These are listed in Exhibit 30 where they are broken down as between the company and the extended area.

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that relating to accrued depreciation. From a consideration of all the evidence, including the historical costs of the property, and the present costs compared with historical costs, and of the value of the property as a going concern, the fair value undepreciated, including an allowance for materials and supplies and working cash for the property existing December 31, 1934, is determined for the entire company to be \$166,000,000 and for the Los Angeles extended area to be \$120,000,000.

The intrastate portion of the entire company property is 96.5 per cent of the total company.<sup>17</sup> Thus the value of the property of the entire company assignable to intrastate operations is in round figures \$160,000,000.

It is essential to determine the value of the property located in the Los Angeles extended area which is assignable to intra-area operations. This may be established by applying a separation

percentage of 95.1 to the value of the property located in the Los Angeles extended area. The fair value undepreciated of the property existing as of December 31, 1934, assignable to the intra-Los Angeles extended area operations is found to be \$114,000,000.

## V

*Operating Revenues and Expenses*

The operating revenues and the expenses other than the expense for depreciation present no material issue.<sup>18</sup> The revenues and expenses for the Los Angeles extended area for the last five months of 1934 (placed for convenience on an annual basis), together with the separation percentages (which are based on the station-to-station separation method approved herein) and the amounts applicable to intra-Los Angeles extended area operations, follow:

Item	Book Amount	Separation Per Cent	Intra-Los Angeles Extended Area
<i>Operating Revenue</i>			
Local service revenue .....	\$22,690,662	99.32	\$22,536,365
Toll service revenue .....	2,339,132	74.38	1,739,846
Miscellaneous revenue .....	631,655	99.64	629,381
Uncollectible revenue .....	154,396	99.46	153,562
Total Operating Revenue .....	\$25,507,053	97.04	\$24,752,030
<i>Operating Expenses</i>			
Maintenance .....	\$5,153,818	96.46	\$4,971,373
Traffic .....	1,889,761	95.72	1,808,879
Commercial .....	2,530,027	89.43	2,262,603
General office—other .....	1,755,101	93.31	1,637,685
Taxes .....	2,872,949	97.74	2,808,020
Total Operating Expenses .....	\$14,201,656	94.98	\$13,488,560
Net Available for Depreciation and Return .....	\$11,305,397	99.62	\$11,263,470

Figures in italics are red.

<sup>17</sup> The separation percentages applicable to the property base are not in issue.

<sup>18</sup> The company assumed the burden of proving the license fee payment of 1½ per cent of gross revenue to the American Telephone and Telegraph Company. Mr. F. N. Rush, the company's general manager, testified as

to the services rendered his company by the American Company. The city makes no issue of this payment, and it has been included in the operating expenses. Likewise, the accruals for employees' pensions have been included in operating expenses in full as recorded by the company.

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The figures for the entire company for the year 1934, together with the separation percentages and amounts applicable to intrastate operations, follow:

Item	Book Amount	Separation Per cent	Intra-State Amount
<i>Operating Revenue</i>			
Local service revenue .....	\$25,908,383	99.55	\$25,791,795
Toll service revenue .....	7,559,109	90.41	6,834,190
Miscellaneous revenue .....	722,401	100.00	722,401
Uncollectible revenue .....	267,000	95.64	255,359
Total Operating Revenue .....	\$33,922,893	97.55	\$33,093,027
<i>Operating Expenses</i>			
Maintenance .....	\$6,885,527	97.24	\$6,695,486
Traffic .....	3,570,438	98.92	3,531,877
Commercial .....	3,014,167	98.23	2,960,816
General office—other .....	2,376,009	97.79	2,323,499
Operating taxes .....	3,766,775	97.66	3,678,632
Total Operating Expenses .....	\$19,612,916	97.84	\$19,190,310
Net Available for Depreciation and Return .....	\$14,309,977	97.15	\$13,902,717

Figures in italics are red.

### VI

#### *Accrued Depreciation and Depreciation Expense*

Perhaps the most important and certainly the most intricate issue presented centers about the amount reasonable and necessary as annual operating expense allowance for depreciation and its complement, the amount to be deducted from the property base because of accrued depreciation.

The conflict between estimate and reality adverted to in *Lindheimer v. Illinois Bell Teleph. Co.* (1934) 292 U. S. 151, 78 L. ed. 1182, 3 P.U.R. (N.S.) 337, 54 S. Ct. 658, is present here in a no less marked degree than there. Indeed, the record here gives an even more complete picture of fact

and reality. While some of the methods of depreciation do not accord with reality but draw in varying degrees upon assumptions, all, if consistently applied to a property like this<sup>19</sup> for

the measurement both of annual depreciation expense and accrued depreciation, lead to almost identical results in expressing the earning position of the company.

The company claims that it should be allowed as annual depreciation expense (in addition to those charges for that property retired through current maintenance or otherwise) a composite rate of about 4 per cent of the property base. At the same time it insists that because of the high degree of maintenance and the fact that there are currently present no observable or known functional causes for retirement of any consequence, its property with a composite average age in excess of seven years has suffered an existing depreciation of but 7 per cent, compared with an accrued depre-

<sup>19</sup> When a property approaches middle age the provision for depreciation and return under various theories tends to coincide. See *Telephone and Railroad Depreciation Charges* (1931) 177 Inters. Com. Rep. 351, 411. Until then, straight-line accounting means a

somewhat heavier burden upon patrons. As of 1934 the rate of return under the straight-line method is about the same as under the sinking fund. The property is now somewhat older.

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ciation of more than 22 per cent if calculated on the basis of the same rates used by the company for calculating depreciation expense.

Its claims in this respect are depicted in the following table:

*Results by the straight-line method.*

[9] The company for many years has accounted for depreciation expense upon the straight-line basis.<sup>20</sup> The result obtained admittedly is not in accord with reality. "The lives of

TABLE V

## SOUTHERN CALIFORNIA TELEPHONE COMPANY

*Company Claims Respecting Annual Depreciation Expense and Existing Depreciation in Depreciable Property (and upon Other Property Not So Classified)*

Item	Book Cost Dec. 31, 1934	Annual Depreciation Rates in Per Cent	Company's Estimate of Existing Depreciation
Right of way—Exchange .....	\$12,000	2.5%	0.0%
Right of way—Toll .....	307,000	2.0	0.0
Buildings .....	12,953,000	2.5	3.0
Central office equipment .....	47,662,000	4.8	4.0
Station apparatus .....	9,399,000	7.7	10.0
Private branch exchanges .....	5,267,000	8.3	5.0
Booths and special fittings .....	404,000	8.2	10.0
Pole lines—Exchange .....	8,052,000	5.3	20.0
Pole lines—Toll .....	3,520,000	4.7	10.0
Cable—Exchange aerial .....	12,016,000	4.4	10.0
Cable—Toll aerial .....	2,426,000	3.1	7.0
Cable—Exchange underground .....	20,785,000	3.3	7.0
Cable—Toll underground .....	6,675,000	2.4	3.0
Cable—Exchange submarine .....	36,000	4.0	16.0
Cable—Toll submarine .....	179,000	4.8	25.0
Aerial wire—Exchange .....	1,656,000	10.0	17.0
Aerial wire—Toll .....	2,899,000	3.4	5.0
Underground conduit—Exchange .....	11,599,000	2.0	6.0
Underground conduit—Toll .....	2,576,000	1.4	3.0
Furniture and office equipment .....	1,541,000	7.5	27.0
Vehicles and other work equipment .....	1,300,000	4.1 <sup>1</sup>	29.0
Station installations .....	5,033,000	0.0 <sup>1</sup>	10.0
Drop and block wires .....	2,838,000	0.0 <sup>1</sup>	20.0
Composite Per Cent .....		4.42%	6.99%

<sup>1</sup> Not handled through the regular depreciation expense account.

The most important account is central office equipment. Here, on over \$47,000,000 of plant, the company claims a 4.8 per cent annual depreciation expense allowance; at the same time it insists the total existing depreciation is but 4.0 per cent. The extreme and unequitable results indicated by this table negative the soundness of the company's position in respect to depreciation.

property" as testified to by Mr. Fleager, "do not follow that theory." Under this basis the company has built up a reserve which at the end of 1934 amounted to nearly three times its estimate of the depreciation existing in the property. On the identical assumptions and prophecies upon which the company estimates a straight-line depreciation expense percentage of 4.42, the past accrued depreciation,

<sup>20</sup> This has been pursuant to accounting instructions of the Interstate Commerce Commission.

the company estimates, equals an even higher amount than does the reserve.<sup>21</sup>

Mr. Fleager; however, was of the opinion that the present reserve is adequate.<sup>22</sup> If he is correct in this, it necessarily follows that the annual allowance for expense should be less.<sup>23</sup>

The amount in the depreciation reserve as of December 31, 1934, was \$29,700,279, while the estimate of existing depreciation for the same accounts was \$10,570,894 and for all properties was \$11,641,828. The corresponding estimate of the reserve requirement or accrued depreciation on the straight-line basis was \$40,078,583 and the study presented by the Commission's staff \$42,974,667.

From the evidence it appears that the accrued depreciation in the property computed in accordance with the straight-line method as of December 31, 1934, was not less than \$26,000,000 for the property applicable to the intra-Los Angeles extended area and not less than \$37,000,000 for the property applicable to intrastate operations.

It is possible, therefore, from the record to set up a table depicting the

company's earning position, were its claim for straight-line depreciation expense to be accepted, by applying the resultant net revenue to a rate base reduced by the amount of straight-line accrued depreciation estimated on the same basic principles used in computing annual depreciation expense.

The following table VI depicts the earning position of the Los Angeles extended area for the last five months of 1934 (on an annual basis) and for the intrastate operations for the year 1934. The periods were selected by the company in its presentation and for comparative purposes have been used herein. Due to the upward trend of business, the last five months' period of 1934, upon which the Los Angeles extended area earnings are based, is on a higher earning level so that the disparity in earnings between the entire company and the Los Angeles extended area is overemphasized in the company's showing and in Tables VI, VII, and VIII herein. Actually, the Los Angeles extended area is on an earning basis about 1 per cent higher than the entire company. The property values as of December

<sup>21</sup> Mr. Fleager testified that if the expense rates claimed by the company had been approved then the figures represented in his estimate would be those which should appear in column 2 of Schedule 6 of the depreciation report prepared originally in accordance with the requirements of the Interstate Commerce Commission, which column is headed "Estimate of Past Accrued Depreciation." (Exhibit 78, p. 60.) He explained how his estimated figure was arrived at as follows:

"... we have two methods in actually computing this, and we have used in certain accounts one method and in other accounts another method, that is, whichever one of the mechanics was more convenient to get the answer. One was to find, with the prophecy of the future life that you have for a piece of property, how much additional reserve should be accumulated, and knowing the salvage and how much additional reserve should be ac-

cumulated, why, you should know what should be in the reserve for it. The other method is to reverse that transaction and begin with the birth of the property and with those rates, with the passage of time, to calculate what reserve should have been accumulated on that property. And, of course, the mathematical conclusions from this give the total reserve requirement. They really lead to the same answer, only one is a positive way and the other is a negative way of getting that answer."

<sup>22</sup> His testimony was "We have built up a balance in our actual reserve for the company which, in my judgment, will protect the property. I think it is a proper reserve in view of all the circumstances."

<sup>23</sup> Mr. Barnes testified that if the depreciation reserve requirement merely equaled the reserve then basically the use of longer lives would be proper with a consequently lower annual rate.

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31, 1934, are used as representative of the periods indicated in this and succeeding tables.

TABLE VI

Item	Los Angeles Extended Area	Entire Company Intrastate
Undepreciated rate base .....	\$114,000,000	\$160,000,000
Less accrued depre- ciation .....	26,000,000	37,000,000
	\$88,000,000	\$123,000,000
Net revenue before depreciation .....	\$11,263,000	\$13,903,000
Depreciation expense <sup>1</sup>	4,471,000	6,198,000
Net for return ....	\$6,792,000	\$7,705,000
Rate of return .....	7.72%	6.26%

<sup>1</sup> The separation percentages for depreciation expense are not contested and are as follows: Los Angeles extended area 95.70 per cent; entire company 96.78 per cent.

#### *Observed depreciation and retirement experience.*

[10] The existing depreciation in the property, it is claimed by the company, reflects the fact of depreciation as disclosed by inspection and observation and uninfluenced by any theories and assumptions. It was revealed, however, by the city's cross-examination, and also affirmative testimony by Commission engineers, that actually there were various theories and assumptions underlying the company's estimate. It was the result of an attempted determination by inspection of a "condition per cent" of the prop-

erty<sup>24</sup> which in turn was translated into value by the use of the same percentages. Inspectors of the property generally reported its condition by nomenclature, such as "good," "fair," and "poor." To these were assigned percentages.<sup>25</sup> Central office equipment, referred to in the footnote, has, according to the company, practically zero value as salvage. Hence, under the percentage assumptions or assignments, at or about the time of retirement there occurs what the company witness characterized as "a comparatively precipitate drop" from a per cent condition of around 83 per cent to zero and which drop, still according to the theory, is translatable to value.<sup>26</sup>

It is obvious that under the definitions and methods upon which the figure under discussion is based, functional causes of depreciation, characterized by the company's witness Scoville as amongst "the most deadly influences affecting the life of a telephone plant," are almost completely ignored. As expressed by Mr. R. A. Wehe, an engineer of the Commission who has specialized in the subject of depreciation, "to follow a type of service theory of value . . . which would find a depreciated cost from 80 to 100 per cent throughout the life of a plant unit, and then indulge in the

equipment to get in any such condition—using these percentages as a basis for grade."

<sup>26</sup> The manual central office equipment in the Drexel office in Los Angeles, which office was originally installed in 1911, for some time has been programmed for conversion to dial equipment in 1936. The retirement of such manual equipment and the substitution of dial equipment is dictated by considerations of "over-all economy." Nevertheless, according to the company's theory the "precipitate drop" in per cent condition, and hence value, is set off by the issuance of an open work order for the conversion.

<sup>24</sup> Thus, Mr. Ilse, the company's witness, testified: "We compare that property to a property of exact size, type, and kind, similarly located, 100 per cent new. That is the per cent condition."

<sup>25</sup> To central office equipment, the most important item of the company's property, the percentages assigned ranged from 83 per cent to 99 per cent. Ilse, in response to a question as to what would happen if a unit was to fall as low as 75 per cent, testified it is "inconceivable to me that anything could grade that low because we do not allow central office

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hypothesis of suffering this final loss during the last stages of service, possibly within a matter of a few months before replacement, is to me so at variance with reason and facts as to cause the collapse of the method by its own inconsistencies."

Satisfactory checks against results reached by elaborate calculations and inspections frequently are not available. In the case of motor vehicles, however, a check was fully displayed. The company estimated the reproduction cost new of its used automobiles and the lessening in their value because of observed depreciation. Against this was the showing of a most persuasive nature that southern California is the largest market for used cars in the world, that such property is traded in extensively, and that there exists well known and generally observed current values for the various types of used cars. These prices are public. The discrepancy between the company's highly theoretical estimate of value and reality as to value as it exists in the market place was striking.

The city presented a study of the company's claims regarding passenger vehicles, showing that the company's reproduction cost new less observed depreciation was 40 per cent higher than the full "Blue Book" sales prices and 94 per cent higher than the wholesale prices shown.

The company's estimate of "existing" depreciation must be substantially modified. However, accepting for

the moment the company's claim, which as indicated disregards almost entirely the functional causes of depreciation, it is of interest to view the actual retirement experience of this company.

The record shows the actual experience of the company as to annual property retirements over a period of some eighteen years. During this period heavy retirements were occasioned by the almost unprecedented physical consolidation of duplicate systems, by a conversion to automatic equipment and by a phenomenal growth of the territory served, yet the weighted average net retirements over the entire eighteen years were but 3.55 per cent of the depreciable capital, compared with the straight-line depreciation expense rates which have averaged 5.15 per cent.<sup>27</sup>

The peak of retirements due to the company's conversion program occurred in 1930 and the completion of this program influenced retirements to some extent in subsequent years.<sup>28</sup> In recent years the rate of retirement has been decreasing steadily. The record discloses a weighted net retirement experience for the last 5-year period of only 2.9 per cent. Such actual net retirement experience of the last five years is more representative of the company's reasonable future retirement needs than is the experience of the whole 18-year period.

The company's reserve at present is more than adequate to cover the existing depreciation in the property,

<sup>27</sup> The percentages of average depreciable plant as charged were: 1918, 6.57; 1919, 6.13; 1920, 6.41; 1921, 6.29; 1922, 6.63; 1923, 5.95; 1924, 5.56; 1925, 5.47; 1926, 5.01; 1927, 5.68; 1928, 5.70; 1929, 5.71; 1930, 5.63; 1931, 5.32; 1932, 4.78; 1933, 4.41; 1934, 4.36.

<sup>28</sup> For the last four years the percentage was 2.59, for the last three years 2.34, for the last two years 1.66, and in 1935, with the last three months estimated, was only 1.52.

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and an allowance of approximately 3 per cent is obviously adequate to care for retirements in view of the experience at this time. This allowance may be viewed as an additional maintenance and replacement allowance as expressed by Mr. Justice Butler in his concurring opinion in *Lindheimer v. Illinois Bell Teleph. Co. supra.*<sup>29</sup>

The earnings of the Los Angeles extended area and the intrastate operations of the entire company may be stated under these assumptions in the form of a table:

TABLE VII

Item	Los Angeles Extended Area	Entire Company Intrastate
Undepreciated rate base .....	\$114,000,000	\$160,000,000
Less observed depre- ciation .....	8,000,000	11,000,000
	\$106,000,000	\$149,000,000
Net revenue before depreciation .....	\$11,263,000	\$13,903,000
Depreciation expense	3,092,000	4,343,000
Net for return ....	\$8,171,000	\$9,560,000
Rate of return .....	7.71%	6.42%

#### Results of sinking-fund method.

[11, 12] As this Commission has frequently pointed out, such conflicts and inconsistencies as have been dis-

cussed herein in the treatment of depreciation in rate cases may be avoided by the use of the sinking-fund method. No estimate of the highly controversial issue of accrued depreciation is needed in this method, the undepreciated property value being used as the base. The amounts accrued are in most properties, as in this company, invested in the property and with a reasonable interest return thereon are sufficient to replace the property at the end of its estimated useful life. The method has been followed for many years by this Commission.<sup>30</sup>

The resultant earning position under the sinking-fund method is set forth as follows:

TABLE VIII

Item	Los Angeles Extended Area	Entire Company Intrastate
Undepreciated rate base .....	\$114,000,000	\$160,000,000
Net revenue before depreciation .....	\$11,263,000	\$13,903,000
Depreciation expense	2,662,000	3,836,000
Net for return ....	\$8,601,000	\$10,067,000
Rate of return .....	7.54%	6.29%

In the above table the depreciation

for expense of \$174,880 to \$68,196 was approved.

<sup>30</sup> See *Antioch v. Pacific Gas & E. Co.* (1914) 5 Cal. R. C. R. 19; *Re Southern California Edison Co.* 19 Cal. R. C. R. 595, P.U.R. 1921D, 65; *Re Southern California Teleph. Co.* 20 Cal. R. C. R. 981, P.U.R. 1922C, 97; *Re San Joaquin Light & P. Corp.*, 21 Cal. R. C. R. 545, P.U.R. 1922D, 595; *Re Pacific Gas & E. Co.* (1922) 22 Cal. R. C. R. 744, P.U.R. 1923C, 385; *Re Coast Counties Gas & E. Co.* (1923) 24 Cal. R. C. R. 69, P.U.R. 1924C, 415; *Re Southern California Teleph. Co.* (1924) 25 Cal. R. C. R. 721, P.U.R. 1925C, 627; *Re Pacific Teleph. & Teleg. Co.* (1929) 33 Cal. R. C. R. 737, P.U.R. 1930C, 481; *Re Los Angeles Gas & E. Corp.* (1930) 35 Cal. R. C. R. 442, P.U.R. 1931A, 132; *San Diego v. San Diego Consol. Gas & E. Co.* (1935) 39 Cal. R. C. R. 279, 7 P.U.R. (N.S.) 443.

<sup>29</sup> Thus Mr. Justice Butler said:

"The only legitimate purpose of the reserve is to equalize expenditures for maintenance so as to take from the revenue earned in each year its fair share of the burden. To the extent that the annual charges include amounts that will not be required for that purpose, the account misrepresents the cost of the service. . . . Amounts sufficient to create a reserve balance that is the same percentage of total cost of depreciable items as their age is of their total service life cannot be accepted as legitimate additions to operating expenses."

As further indicative of the attitude of the Supreme Court, it is worthy of note that in *Columbus Gas & Fuel Co. v. Ohio Pub. Utilities Commission* (1934) 292 U. S. 398, 78 L. ed. 1327, 4 P.U.R. (N.S.) 152, 54 S. Ct. 763, 91 A.L.R. 1403, where accrued depreciation was taken at a figure somewhat less than the reserve, the reduction of the utility's claim

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expense has been computed by the Commission engineer, taking the lives and salvage for the various classes of depreciable property used by the company.<sup>31</sup> The computation of these depreciation allowances is not questioned.

In *Los Angeles Gas & E. Corp. v. California R. Commission*, 289 U. S. 287, 77 L. ed. 1180, P.U.R.1933C, 229, 53 S. Ct. 637, the Commission tested earnings for rate purposes in accordance with its usual practice by making no deduction for accrued depreciation, but with the expense of depreciation taken as a reasonable sinking-fund annuity. The court did not criticize this method of treatment. There was, however, a Commission finding as to the amount of accrued depreciation, but this in fact played no part in the final determination. The same procedure will be followed here. It may be concluded that such accrued depreciation was not less than \$13,500,000 for the intra-Los Angeles extended area property and not less than \$19,000,000 for the intrastate property. If it is desired to consider accrued depreciation in conjunction with sinking-fund depreciation, then the results shown by Table VIII, in which the indicated return is for the dual purpose of providing a return on the property base and interest on an appropriate fund representative of accrued depreciation, may be used. The deduction for accrued depreciation may be in any reasonable amount, and interest thereon may be added to the

amount of the annuity included in operating expense.

It may be of interest to note that the combined allowances for maintenance and depreciation are substantial in all of the three methods as shown by the following summary. In each of the three methods there is included in operating expense for current maintenance for the intra-Los Angeles extended area the sum of \$4,971,000. This amount when combined with the respective provisions made for depreciation expense is shown in tabular form as the total provision thus made for the protection of the plant in its relation both to property base and to gross revenue. In expressing the relationship of the provision in Table VIII the annuity has been augmented by interest on the accrued depreciation found herein.

TABLE IX

	Total of Maintenance and Base Under- Depreciation (3)	% of Column (1) to Property preciated (2)	% of Column (1) to Revenue (1)
Table VI	\$9,442,000	8.3%	38.1%
Table VII	8,063,000	7.1	32.6
Table VIII	8,443,000	7.4	34.1

Because of the long use of the sinking-fund method in this state with satisfactory results, and because it more closely approximates reality than does the straight-line theory, it will be employed here as a test of earnings for the purpose of establishing rates, although it is clear that the same conclusions are reached by consideration of any of the three methods.

### VII

#### *Future Conditions*

It now becomes necessary to look

<sup>31</sup> The annuity computed as it is upon the company's estimates of lives and salvage is perhaps overly liberal if the company is correct in saying its present reserve on the straight-line basis is adequate.

ahead and to determine what, if any, modifications should be made in the 1934 earning position in order to visualize and appraise the probable earnings of the Los Angeles extended area and the entire company under present rates in the near future. Looking ahead there are three outstanding factors to be evaluated: *First*, increased taxes already beginning to be felt and the full incidence of which will come in 1936 (except for the increasing payroll tax under Social Security legislation, which becomes heavier in subsequent years); *Second*, a rapid pick-up in stations with an increased revenue, together with a mounting toll business, and some increase in expense and in capital, as shown by the experience of the first nine months of 1935; and *Third*, the fact that the company's plant is still a considerable distance from the degree of utilization realized during the early part of 1931.<sup>32</sup>

Taxes in 1936 (unless affected by litigation) will be over \$1,000,000 higher than in 1934. Most of this increase is to be ascribed to the change in the state tax system effective for the fiscal year 1935-36. Unemployment insurance taxes become effective in 1936. The company estimates its increased tax requirements as follows:

State and local taxes .....	\$1,018,000
Federal taxes (assuming a 3 per cent payroll tax) .....	354,000
Total .....	\$1,372,000

<sup>32</sup> On March 1, 1931, there were 595,194 stations in use. This peak declined rapidly until August 1, 1933, when the number was only 511,911. Since then there has been a steady increase, the growth being most noticeable in 1935. On September 30, 1935, the total stations were 549,361. During all of this time there has been in addition a large number of disconnected stations averaging around 50,000.

The factor of excess plant capacity mentioned naturally tends towards keeping the increase in both capital and expense (other than taxes) at a lesser rate than the increase in gross revenue.

This result is very clearly shown by the 1935 figures which are available.<sup>33</sup>

The actual experience of the company for the twelve months' period ending September 30, 1935, including actual added tax accruals in July, August, and September, indicates an earning at the rate of 6.8 per cent with the property base and depreciation allowance herein found reasonable as contrasted with the 6.3 per cent for the calendar year 1934. Indeed, as Mr. McNaughton showed, the increased earnings of the first nine months of 1935 were sufficient to cover the increased taxes expected in 1936 and still leave the company in as good an earning position as in 1934.

The improvement in gross and net revenue of recent months may be illustrated by the monthly figures as reported by the company for cost of plant, gross revenue, and expense, and net revenue before depreciation, as well as of stations, which are summarized in the following Table X. This table also indicates percentage increases and the increase in revenue per station consequent upon upgrading in service and increased message and toll usage: [Table omitted.]

Mr. Fry was of the opinion that at the end of 1934 the company's plant was from 9 to 15 per cent larger than necessary to care for its then subscribers.

<sup>33</sup> The company presented general testimony respecting probable increases in expenses over the 1934 level. Experience for nine months of 1935 has given weight to the effect of such increases.

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The importance of the present and reasonably to be anticipated earnings of the extended area has already been indicated in the preceding Table IV, which displays various relationships as between the Los Angeles exchange, the Los Angeles extended area and the company as a whole for various periods. The following Table XI [Table omitted] gives monthly figures for stations and other items for the thirteen months since the Los Angeles extended area was established in conjunction with corresponding company-wide figures for the same items. Percentages are inserted to indicate relationships. The consistency of relationship between entire company and extended area is significant.

As in the case of company earnings, the record points irresistibly to the conclusion of better earnings in 1936 in the Los Angeles extended area. Stations and gross and net revenue mounted steadily and consistently in 1935. The actual experience of the extended area for the twelve months' period ending on August 31, 1935, including added tax accruals in July and August, indicate an earning at the rate of 7.9 per cent.

It is impossible to view the facts of record without being impelled to the conclusion that the earning position of the Los Angeles extended area and the entire company in the future will be distinctly better than it was in 1934. The year 1934 departed from normality in various respects. The change-over to the extended area plan of service resulted in certain non-recurring expense. The record plainly indicates that this year together with 1933 was at the bottom of the depression as to the telephone business.

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The extent of the improvement ahead must be approximated in order to establish just and reasonable rates for the future. It would be absurd to take into account probable added taxes, both state and Federal (which of course are subject to judicial attack) and close the eyes to rapidly and consistently increasing stations and mounting gross and net revenue during 1935.

A careful evaluation of the facts of record in this case leads irresistibly to the conclusion that in 1936 the intra-Los Angeles extended area earnings will probably be over 8.0 per cent and certainly not less than 7.7 per cent on an undepreciated fair value rate base of \$116,000,000. And it is equally clear that in 1936 the intrastate earnings of the entire company will probably be over 7 per cent and certainly not less than 6.7 per cent upon an undepreciated fair value rate base of \$163,000,000.

### VIII

#### *Rate Reduction Indicated*

What constitutes a reasonable rate of return, usually an important issue in a rate case, is here not a matter requiring extended treatment. In the fixing of reasonable rates for the Los Angeles exchange alone, the consideration of other factors relative to company-wide results serves to minimize the rate reduction which otherwise might reasonably be made. The net return available from the Los Angeles exchange at the rates here to be prescribed will yield in excess of a fair return upon the value of the property in that exchange.

[13, 14] The Commission is compelled to recognize the great changes

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occurring during the period of depression through which the nation has been passing, those "profound changes" to which the Supreme Court has referred, not only in property values but in "reasonable return on invested capital." Central Kentucky Nat. Gas Co. v. Kentucky R. Commission (1933) 290 U. S. 264, 78 L. ed. 307, 3 P.U.R.(N.S.) 384, 54 S. Ct. 154. Neither may the Commission fail to observe the sharp decline which has occurred in the cost of capital funds to public utilities, as disclosed in its own decisions authorizing the issuance of securities.<sup>24</sup>

[15] The city has contended in this case that a return of 6 per cent is the maximum rate of return which may reasonably be accorded. It presented evidence indicating the yield which might be obtained by an investor in representative national and California portfolios of bonds and stocks, the current yield being shown less than 4

per cent on their current average market cost.

The capital which the company has invested in the enterprise consists largely of common stock issued to its parent company, The Pacific Telephone and Telegraph Company. For some time this stock has been on a 6 per cent dividend basis. Approximately 5 per cent of its capital is derived from bonds and from advances by the parent company, and about 20 per cent consists of reserve funds built up from earnings for depreciation and employees' pensions, which reserves are invested in the plant. Mr. W. C. Fankhauser, of the Commission's staff, testified that the carrying cost of the company's borrowed money for 1934 was approximately 5.25 per cent.

The extent to which the company's record of earnings may justify a reduction of its rates in the Los Angeles exchange may not, as above stated,

<sup>24</sup>Major refinancing authorizations by the Commission since Jan. 1, 1935 follow:

1. Re Pacific Gas & E. Co. (Dec. 27837, March 22, 1935) \$45,000,000. 4% bonds due 1964 offered at 100, yielding 4.00%.
2. Re Southern California Edison Co. (Dec. 27856, March 27, 1935) \$73,000,000. 3½% bonds due 1960, offered at 98½, yielding 3.85%.
3. Re San Diego Consol. Gas & E. Co. (Dec. 27968, May 20, 1935) \$15,500,000. 4% bonds due 1965, offered at 101, yielding 3.95%.
4. Re Pacific Gas & E. Co. (Dec. 28053, June 19, 1935) \$30,000,000. 4% bonds due 1964, offered at 104, yielding 3.77%.
5. Re Southern California Edison Co. (Dec. 28035, June 12, 1935) \$35,000,000. 3½% bonds, due 1960, offered at 98½, yielding 3.85%.
6. Re Associated Teleph. Co. (Dec. 28055, June 24, 1935) \$8,500,000. 4% bonds due 1965, offered at 99, yielding 4.05%.
7. Re Southern California Gas Co. (Dec. 28077, June 27, 1935) \$15,000,000. 4% bonds due 1965, offered at 101½, yielding 3.92%.
8. Re Coast Counties Gas & E. Co. (Dec. 28177, Aug. 19, 1935) \$3,000,000. 4% bonds due 1965, offered at 103½, yielding 3.80%.
9. Re Southern California Edison Co. (1935) 39 Cal. R. C. R. 393, \$27,500,000.

Serial debentures offered to yield .875% to 3.75%.

10. Re Southern California Edison Co. (1935) 39 Cal. R. C. R. 397, \$30,000,000. 4% bonds due 1960, offered at 102, yielding 3.85%.
11. Re Pacific Gas & E. Co. (1935) 39 Cal. R. C. R. 409, \$20,000,000. 4% bonds due 1964, offered at 102, yielding 3.88%.
12. Re Los Angeles Gas & E. Corp. (1935) 39 Cal. R. C. R. 505, \$40,000,000. 4% bonds due 1970, offered at 102, yielding 3.90%.
13. Re California Water & Teleph. Co. (1935) 39 Cal. R. C. R. 429, \$5,000,000, of 5% bonds due 1965, offered at 101, yielding 4.93%.
14. Re Pacific Teleph. & Teleg. Co. (1936 as later modified) 39 Cal. R. C. R. 608, \$30,000,000. 3½% bonds due 1966, offered at 101½, yielding 3.17%.
15. Re Pacific Gas & E. Co. (1936) 39 Cal. R. C. R. 661, \$90,000,000. 3½% bonds due 1961 offered at 102½, yielding 3.60%.
16. Re California Oregon Power Co. (Dec. 28633, March 16, 1936) \$13,500,000. 4% bonds due 1966, offered at 97½, yielding 4.15%.
17. Re Santa Barbara Teleph. Co. (Dec. 28696, April 6, 1936) \$1,460,000, of 3½% bonds due 1966, offered at 102½, yielding 3.36%.

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rightly be measured by the results of operations in that exchange alone. Based upon the fair value here found for the property applicable to the whole Los Angeles extended area, a reduction in annual gross revenue of over \$2,000,000 might be effected and not reduce the earnings for that area below 6 per cent. And it is clear that the earnings in the Los Angeles exchange are distinctly higher than in the other exchanges of the company's system.

The Commission is not, however, disposed to reduce the company's rates to the extent that it might under these circumstances. Rather it seeks a result which as a matter of equity gives some consideration to the investment structure of the entire property and to the earnings thereon in the low earning territory outside the Los Angeles extended area and not involved in this proceeding.

It is the conclusion of the Commission, in view of all the evidence presented by the record in this case, that a reduction of \$1,250,000 in the gross revenues of the company should be made in the rates applicable to the Los Angeles exchange. Because of the incidence of taxes and certain operating charges which are proportioned to gross and net revenue, a reduction in gross revenue affects net revenue to a lesser degree.<sup>35</sup> The result of this reduction in net revenue will amount to about \$975,000. It will leave the Los Angeles extended

area with an earning of not less than 6.8 per cent upon the fair value of that property as here found.<sup>36</sup>

### IX

#### *Spread of Rate Reduction*

While the Commission was considering the record of the case, it addressed a communication to the city and to the company to the effect that it would be pleased to receive any suggestions or recommendations from the parties respecting rate changes in the Los Angeles exchange. The request was based on assumed gross reductions ranging from \$250,000 to \$1,500,000. The letter made it clear that answers to such request would in no way prejudice the position of either party. A copy of the letter was sent to all appearances.

The city and the company replied to the communication by making various suggestions appropriate to the several amounts of assumed reductions. Since the receipt of the replies, the parties have submitted a map displaying the changes in the base rate area of the Los Angeles exchange to conform to their common suggestion. With these very helpful suggestions the delicate and oftentimes difficult task of spreading a reduction in rates is greatly simplified.

The following summary lists the suggestions in tabular form, the monetary effect being indicated, and the order of importance or priority of each as expressed by the parties be-

<sup>35</sup> A lesser gross revenue affects the amount of license and franchise payments and uncollectibles, and a reduction in net reflects itself in the state and Federal taxes proportioned against net income. To effect a reduction in net revenue of \$100, a reduction in gross revenue of not less than \$128 must be made.

<sup>36</sup> Although the rates of the whole Los Angeles extended area are not here involved, it is evident that because of the relatively high earnings in the Los Angeles exchange compared with those of the other exchanges in the extended area, such rate reduction would in any event properly be applicable to the Los Angeles exchange alone.

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ing shown by numerals as nearly as 1. Consideration should first be they may be deduced from the replies: given to charges for business service

	Company		City	
	Order	Amount	Order	Amount
Eliminate monthly charge on long cords and modify installation charge .....	(1)	\$33,000	(1)	\$35,000
Reduce hand-set rate 10 cents a month .....	(2)	226,000 <sup>1</sup>	(2)	146,000
Reduce one-party residence flat 25 cents a month .....	(3)	76,000	(4)	76,000
Reduce two-party residence flat 25 cents a month .....	(4)	249,000	(5)	249,000
Reduce one-party residence flat additional 25 cents a month .....	(5)	76,000	(9)	76,000
Reduce one-party business measured service 50 cents a month and decrease message allowance by 10 .....	(6)	170,000	(6)	170,000
Reduce semi-public service guaranty by 10 per cent .....	(7)	45,000	(7)	45,000
Revise base rate area .....	(8)	25,000	(3)	25,000
Reduce hotel P.B.X. message rate to 4 cents .....	(9)	45,000	(14)	45,000
Reduce business and semi-public extensions 25 cents a month .....	(10)	55,000	(10)	55,000
Reduce commercial P.B.X. stations 25 cents a month .....	(11)	177,000	(11)	177,000
Reduce commercial P.B.X. trunks \$1.00 for first two a month .....	(12)	34,000	(13)	34,000
Reduce hotel P.B.X. non-guest stations 25 cents a month .....	(13)	8,000	(12)	8,000
Reduce two-party measured residence 25 cents a month .....			(8)	220,000
Reduce business main P.B.X. rate to 3 cents per message over 350 per line per month .....			(15)	140,000
		\$1,219,000		\$1,501,000

<sup>1</sup> Applies to all exchanges in southern California.

The record also contains a comparison of telephone rates of the Southern California Telephone Company and comparable rates prevailing in other sections of the United States.<sup>37</sup> Rates in Los Angeles were compared with those prevailing in fourteen other large cities, and the general conclusion drawn that the charges for business telephone service in Los Angeles are slightly above the average, while the charges for residence service are below the average of rates in other large cities. It was found also that for the business service, the rates of the small user are comparatively high in Los Angeles, while charges for the larger business user fall close to the average.

A careful consideration of these suggestions, of the various rate schedules of the company and of comparative rates in other cities has led

<sup>37</sup> This study was prepared jointly by Mr. Fry, Mr. Guillou, and Mr. T. J. Harris, commercial engineer for the company.

to conclusions which may be expressed briefly as follows:

and particularly the minimum charges for individual business service. Certain miscellaneous charges which seem to be out of line should be adjusted.

2. Existing relationships in the various grades of residence service should be disturbed as little as possible.

3. With the other conclusions reached herein, charges for hand set stations are reduced 25 cents to 50 cents a month in common with reductions in the desk and wall set rates.

4. The equity of the large department stores is recognized by the general reductions applicable to private branch exchange station rates made herein.

The following tabulation expresses the conclusions reached by the Commission respecting the several and separate reductions in charges which should be made for the Los Angeles exchange, their order of priority being appropriately indicated by numerals:

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## General and Miscellaneous

(1) Eliminate monthly charge on long cords and modify installation charge	\$33,000	
(2) Revise the base rate area .....	25,000	
Subtotal .....		\$58,000
<i>Business</i>		
(3) Reduce one-party business measured service by 50 cents a month but with no reduction of message allowance .....	\$240,000	
(4) Reduce semi-public service guaranty by 10 per cent .....	45,000	
(5) Reduce business and semi-public extensions by 25 cents a month .....	72,000	
(6) Reduce commercial P.B.X. stations by 25 cents a month .....	177,000	
(7) Reduce commercial P.B.X. trunks by \$1 for first two a month .....	34,000	
(8) Reduce hotel P.B.X. non-guest stations by 25 cents a month .....	8,000	
Subtotal .....		\$76,000
<i>Residence</i>		
(9) Reduce two-party residence flat by 25 cents a month .....	\$249,000	
(10) Reduce two-party measured residence by 25 cents a month .....	220,000	
(11) Reduce one-party residence flat by 25 cents a month .....	76,000	
Subtotal .....		\$545,000
Total all reductions .....		\$1,179,000

The monetary effect of these reductions as expressed in the tabulation are the results of the estimates of the parties checked against the "Classification of lines and stations" filed in this case. As they are based upon telephones in service in November, 1935, they do not reflect the effect of increased stations in 1936. Allowance for this should be made.

With such an allowance being made, the effect of the reductions specified upon the company's gross revenue will be approximately \$1,250,000, and the effect on its net will be approximately \$975,000. While a larger reduction could be justified, certain changes in the extended service rates in contiguous exchanges while not necessitated by the reductions ordered, may prove desirable to maintain relationships, and the Commission does not desire to discourage the making of these changes.

## X

### Discrimination

[16] Sharp differences in the lucra-  
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tiveness of various exchanges furnished the background for the charge of discrimination by the city and for extensive and interesting arguments by counsel as to whether this afforded a basis for a finding of discrimination and if so the form of order which might be made.

With the conclusion heretofore reached and with the orders consequent thereon it is unnecessary to consider this issue at any length. Cost is not the sole criterion of the spreading of rates. It is impossible to bring about a situation where every class of service and every area contributes ratably to the earnings of a large utility. Consideration has been given here to earning relationships and with the disposition of the case these relationships will not be so out of line as to justify entering upon the field of correcting maladjustments by orders against discrimination.

I propose the following form of findings and orders:

Public hearings having been had in the above-entitled case and the case

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having been submitted for decision, the Railroad Commission of the state of California, after giving full and careful consideration to the record before it and the arguments of the parties, concludes and finds as follows:

1. The fair value (before deduction for accrued depreciation) of the property of Southern California Telephone Company, devoted to service within the Los Angeles extended area as a going property with business attached:

For the twelve months' period ending on August 31, 1935 was \$114,000,000  
And for the year 1936 will be ... 116,000,000

2. In view of the character of the property and the occurrence of depreciation, it is reasonable to measure the present and probable future earning position, under rates now in effect and under rates herein prescribed, without deduction from the figures expressed in finding No. 1 for accrued depreciation but with depreciation expense (Account 608) measured by the amount of an appropriate sinking-fund annuity; and the succeeding finding No. 3 includes depreciation expense on such basis.

3. Under rates now in effect, the net revenue available for return and interest upon a reasonable depreciation reserve:

For the twelve months' period ending on August 31, 1935 was .... \$8,950,000  
And the reasonably to be anticipated net for the year 1936 is not less than ..... 8,900,000

And under the rates herein fixed:

The reasonably to be anticipated net revenue for the year 1936 (had the reduction been in effect during the entire year) would not be less than ..... \$7,925,000

4. Under the rates herein prescribed the utility will earn a return on the fair value of the Los Angeles extended area (including the Los Angeles exchange) which considered by itself is higher than a reasonable return, and will earn a return on its entire investment as high or higher than capital in the vicinity can obtain in other investments comparable as to security and risk and will be able to earn all of its fixed charges and reasonable depreciation requirements and dividends upon the equity in the property represented by common stock and attract such, if any, new capital as may be needed for the improvement and extension of the system.

5. The present rates and practices of the utility in the Los Angeles exchange (which is the dominant factor in the Los Angeles extended area) are and each of them is unreasonable to the extent they differ from the rates and practices herein prescribed, which are, and each of them is, found to be just and reasonable rates and practices for the future.

CARR, Commissioner, concurring: In joining in the foregoing opinion, findings, and orders (which I do), it is appropriate to state my understanding of the basis of the opinion which has been revised and amplified in the endeavor to attain an expression in which all the members of the Commission could join in support of an order as to which at no time has there been any disagreement.

The Los Angeles exchange is the high earning and dominant portion not only of the Los Angeles extended area but of the entire system. It is

## CALIFORNIA RAILROAD COMMISSION

the rates in this exchange that are assailed. It is the rate-fixing area in issue. Two limitations, one purely equitable and the other legal, spell out the amount of the reduction ordered in this exchange:

(a) The reduction has been limited to an amount which will not reduce the earnings of the company as a whole below approximately 6 per cent on its investment, with depreciation expense on a sinking-fund basis. This limitation does not represent a matter of legal right of the utility but rather an equity in favor of the outside low earning exchanges.

(b) Unusual care has been taken to insure against rates fixed for the Los Angeles exchange falling short of yielding a reasonable return on the fair value of the property devoted to the service in that exchange and thus impinging upon the legal rights of the utility. To this end is the long discussion of value and the consideration of the earnings of the Los Angeles extended area which the utility claims

is the smallest divisible operating unit which includes the Los Angeles exchange. These earnings and evidence showing the Los Angeles exchange to be the highest earning exchange in the extended area indicate that the rates fixed leave the Los Angeles exchange on a very liberal earning basis. It would still be on a liberal earning basis even were the earnings computed upon the utility's own claims as to value, value being the least important of the various issues present. Indeed, even if all the claims of the utility were accepted *in toto*, it is doubtful if the rates fixed for this exchange could be said to be unreasonable and to violate any legal rights of the utility.

In a word, this is peculiarly an "equity" case in which the important and controlling consideration has been the adoption of a reasonable limitation upon the amount of the reduction—a limitation which under all the circumstances is fair as between the high earning metropolitan area and the outside low yielding exchanges.

# The March of Events

## Favors Use of River Water

SECRETARY of the Interior Harold L. Ickes will take no action to limit in any way the use of Colorado river water for power development on the All-American canal, against which protests have been made by Governor Ed. C. Johnson of Colorado and chief executives of the other upper basin states.

Ickes' decision was forecast recently by the report of John C. Paige, acting commissioner of reclamation, who informed the secretary that the Imperial valley section of California, which derives all the benefit from the All-American canal, does not share in distribution of power generated at Hoover dam.

If the Imperial valley is to get any power from Colorado river water, Paige pointed out, it must be generated at power sites along the canal. Provision for such development is made in the Hoover Dam Act, he said, which reserves power dam sites along the All-American route.

The upper basin state governors urged Ickes to reconsider authorizations to develop power at the canal dams, on the ground that distribution of such power would delay repayment of the cost of Hoover dam proper. Paige's memorandum was intended as a reply to the governors' views, he said.

## Long-distance Rate Cut Announced

THE American Telephone and Telegraph Company announced recently that it had filed with the Federal Communications Commission a schedule of reduced interstate long-distance rates, effective September 1, 1936, and estimated to save its patrons \$7,500,000 annually.

The new schedules reduce the cost of all interstate calls for distances of more than 234 miles; and the reduction, which is the seventh to be made by the A. T. & T. in ten years, applies to day, night, and all-day Sunday rates for both station-to-station and person-to-person calls. The new schedules also provide that overtime charges on all person-to-person calls will, after the first six minutes of conversation, be the same as station-to-station overtime charges for like distances. This change in overtime rates will, according to the company's announcement, save as much as 20 per cent on some calls.

The rate reduction, the company announced, was made possible by the upward trend in long-distance usage and the operating results from a policy of continuous development and research. However, Chairman Anning S. Prall, of the Federal Communications Commission, in recognizing the proposed rate cut,

declared charges were lowered "as an immediate result" of the commission's investigation of the telephone company. He stated:

"Although the new rates have been filed voluntarily by the telephone company, I am convinced these reductions are an immediate result of the work of the commission in investigating the American Telephone and Telegraph Company."

Meanwhile, Chairman Walker of the FCC telephone division, visiting in Oklahoma City, declared that while the reduction is a step in the right direction, it "is not sufficient."

## PWA Aids Power Units

PUBLIC Works Administrator Harold L. Ickes, according to Washington reports, decided recently to override public utility opposition and stress municipal power plant construction under his new 300-million-dollar building program.

His plan was understood to have the full consent of President Roosevelt. It exactly fitted the New Deal's long-range plan of using Federal money for publicly owned power developments. The final decision on the government's right to spend public funds, financing municipally owned systems, however, will come next fall from the U. S. Supreme Court.

Ickes may finance up to 141 municipal electricity projects costing around 100 million dollars while battling power company charges that his action would violate the Constitution. The power program, if all applications are financed by PWA on a 45 per cent grant basis, would include 69 new municipal power plants, 58 improvements to existing plants, 11 institutional plants, and 3 distribution systems. However in early allocation from the 1936 fund announced in July, only a few minor power projects were included.

## To Welcome Foreign Representatives

DR. William Durand, noted California scientist, who will act as chairman of the Third World Power Conference meetings, to be held in Washington, D. C., during the week of September 7th-12th, has found an easy solution of the linguistic difficulties presented in addressing representatives of 48 nations. At the opening session of the conference on September 7th, Dr. Durand will make his address of welcome in four languages—English, French, German, and Spanish—all of which he speaks fluently.

Dr. Durand, who is now Professor emeritus of mechanical engineering at Stanford University, Palo Alto, California, served on the

International Commission Inventions at the close of the World War, and was attached to the American Embassy in Paris. He headed a committee appointed last year by the President to determine the future policy of the Navy Department in regard to lighter-than-air craft.

Dr. Durand is a Fellow of the American Academy of Arts and Sciences and is the author of numerous books on engineering.

### Railroad Electrification Proposed

THE Federal Power Commission declared recently it would be "feasible" to electrify an additional 12,000 miles of railroad throughout the country at a cost of about \$600,000,000. Listed among projects considered "feasible" were:

Union Pacific, Cheyenne, Wyoming, to Ogden, Utah; Atchison, Topeka, and Santa Fe, San Bernardino, California, to Winslow, Arizona; Southern Pacific, Roseville, California, to Sparks, Nevada, and Bakersfield to Los Angeles, California.

### Postponement Granted

DATE for hearing on the application of The Niagara Falls Power Company for amendment of license for Project No. 16 on the Niagara river, asking authority to divert an additional 275 cubic feet of water per second through the project, has been postponed from September 14 to September 21, 1936, it was announced by the Federal Power Commission recently.

The hearing was postponed at the request of the Department of Law of the state of New York, and the postponement was agreeable to the attorneys for the licensee.

### Regulation Board to Publish Surveys

IN order to keep the public more fully informed with respect to the results of utility regulation and economic changes taking place in the business of providing essential public services, the division of research and statistics of the Washington State Department of Public Service is undertaking a series of more refined analyses of accounting, financial, and statistical data compiled from the operating data of the public service companies under its jurisdiction. A study of the sales of electrical energy statistics in the state of Washington for the year 1935 with trends for the past two years has been prepared in accordance with that policy. It is believed it will be of special import to the people in a year when so much interest is centered upon the question of the extent of economic recovery.

Hon. Ferd J. Schaaf, director of the department, writing the foreword of the recently issued "Bulletin No. UE 7" entitled "Trends in Sales of Electric Energy," stated:

"To throw light upon this question, we have attempted to compare revenues from the sale of electrical energy, kilowatt hours sold, num-

ber of customers served, and other significant factors in 1935 with the year 1934. We are glad to be able to say that the trends disclosed in this study are favorable as reference to the summary and textual and tabular material will show. For instance, kilowatt hours sold to ultimate consumers in the state in 1935 increased 10 per cent over 1934, while revenues from the sale of electrical energy to ultimate consumers increased by 6 per cent, thus indicating that the people of Washington are securing their energy at a lower average rate than heretofore.

"This study covers only the private electric utilities doing business in the state of Washington owing to our lack of jurisdiction over municipal utilities. Because of this deficiency, it is impossible for the Department to give the people of the state complete information about the condition of the entire industry. Furthermore, there may be other deficiencies due to the lack of information supplied by reporting utilities, or the failure of our present reporting system to disclose some information. However, we believe that such deficiencies will not materially impair the value of this study.

"This study was planned by Dr. J. C. Nelson, chief of the division of research and statistics of the department of public service, and carried out under his supervision. Special acknowledgment should also be given to Homer H. Grant, research engineer, who prepared the statistical tables and computations and the first draft of the manuscript."

### No Pies for Pigs at Quoddy

CAPTAIN Samuel Sturgis, Jr., in charge of mess at the abandoned Passamaquoddy tidal project, recently described as "deliberate lies" reports that pigs were feasting daily on hundreds of pies and loaves of bread made under government contract.

The reports were that with manpower at "Quoddy reduced to a corporal's guard," virtually all of the 500 pies and 800 loaves of bread delivered by private bakers soon found their way into government garbage pails.

"Then," it was stated, "Farmer Ed Pottle of Perry, who 'has the contract to remove Quoddy garbage,' hauled the pies and bread off to his pig pens."

In refuting the reports, Captain Sturgis claimed that not a single pie had been purchased for Quoddy workers since the project had been started, and that only 110 loaves of bread had been delivered daily during the month of July, which allows each worker an average six ounces less than the prescribed Army rations.

### FPC Reports Released

THE first of a series of monthly reports on power production facilities in the United States was issued in July by the Federal Power Commission. These reports had been published by the U. S. Geological Survey since 1919, when the compilation was taken over from the War Department, which began it as a wartime measure. However, the FPC be-



*In the path of a Sun*



*That never sets . . .*

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Turn to Truscon when needs arise for standard steel buildings, steel windows and doors, steel joists, metal lath products, steel roofs and side-walls, reinforcing steel products, steel poles, steel towers, steel reinforcing products for roads and bridges and numerous other steel products. Prompt co-operation can be secured from any of Truscon's 54 sales-engineering offices in this country. For specific details, write . . . Truscon Steel Company, Youngstown, Ohio.

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came dissatisfied with the classifications and general routine followed by the Geological Survey, and suggested sometime ago that the duty of making such a compilation should be delegated to the commission.

Since the maintenance of such records is generally delegated to the FPC anyhow by the Federal Power Act, the President approved a plan whereby the "duplication" in the collection of power statistics would be eliminated.

The Federal Power Commission has also released booklet No. 6 in its national power survey series. This summarizes statistics on electric generating plants in the United States from 1920 to 1935, as compiled by the U. S. Geological Survey. The 16-year summary shows an increase in both publicly and privately owned systems.

The latter increased from 2,949 to 3,027, while the former jumped from 891 to 983. The reclamation bureau and other miscellaneous Federal or state projects accounted for 38 of the public plants.

### Firm Sells British Properties

**R**EPERCUSSIONS of the McGowan Committee report made last June to the British Parliament, urging the necessity of consolidating English electric distribution systems, were seen in the recent sale by the Utilities Power & Light Corporation of British properties to London banking interests, for the sum of \$30,000,000. Of this sum, approximately \$5,000,000 was used to liquidate a loan of that amount owed to the Prudential Assurance Company of London.

It was understood in financial circles that the power and light company, which owns and controls a large number of public utility operating companies in several Western and Eastern states, might use the \$25,000,000 received in the transactions to redeem some of its outstanding debentures which amount to \$50,000,000. This would effect a substantial saving in fixed charges.

Under the contract sale, it was learned,

Utilities Power and Light has an option to buy a 5 per cent participation in the purchase group which was headed by Lazard Freres of London and included a number of insurance companies and private investors.

### St. Lawrence Pact Still Doubtful

**M**ORE than a century and a half of common history was highlighted recently with the first official visit of the President of the United States to a neighboring country, Canada, where he conferred with Governor General Lord Tweedsmuir, Dominion Premier McKenzie King, and other Canadian officials.

Although, prior to his Canadian visit, the President had remarked that coöperation in mutual development and exchange of power would be discussed at Quebec, among other matters of international interest, the belief is current that such discussions were very informal; and it is doubtful whether possibilities of an international Passamaquoddy development or the revival of the St. Lawrence waterway treaty were seriously urged.

Moreover, according to Canadian newspaper reports, the Ontario Government has not changed its mind and will not consider early Ontario participation in a St. Lawrence waterway. The reason for the Queen's Park coolness toward the seaway is the \$100,000,000 expenditure which would be saddled on the government and the Hydro-Electric Commission.

The Hepburn administration is said to believe that this is no time to take on such a debt; also, that the waterway will be uneconomic until the Dominion requirements begin to make a dent in the present surplus of transport and power.

Furthermore, it has been reported that the St. Lawrence agreement between the Dominion and the Province expired last spring, which means that the administration is not even tied any longer by the old régime agreement which put Ontario into the waterways project.

## Alabama

### Petition for Injunction Denied

**J**UDGE W. W. Callahan recently denied an Alabama Power Company petition for an injunction to restrain the Cullman County Electric Membership Corporation, a coöperative group, from engaging in distribution of electricity.

The judge, in effect, held the Cullman cor-

poration was valid under an act of the 1935 state legislature, which granted coöperative groups authority to engage in distribution of electricity without a certificate of convenience from the state public service commission.

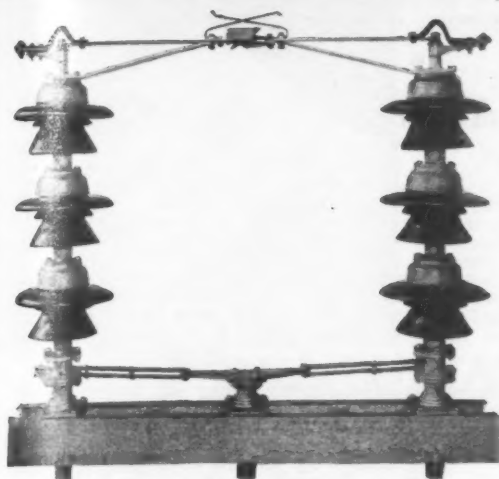
The Cullman corporation, testimony revealed, expected to retail power to its members after purchasing it from the Tennessee Valley Authority.

## Arizona

### Power Survey Launched

**A** LOCATION survey for power transmission lines between Parker and the Yuma-Gila

project, east of Yuma, has been started, according to R. B. Williams, the government engineer in charge of constructing the Yuma-Gila project and the All-American canal.



TYPE "PM-23" 115/132-S K. V. 600 AMPERE

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### COMBINED METERS AND TIME-SWITCHES



TYPE HV-11-S-2

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The Type HV instruments combine a standard singlephase HF watt-hour meter with a synchronous motor time-switch—in various switching arrangements—supplied with or without two-rate register. Low cost installation and minimum space requirements make them desirable for metering and controlling off-peak loads.

*Modern Meters for Modern Loads!*

**SANGAMO ELECTRIC COMPANY**  
SPRINGFIELD, ILLINOIS

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The line, extending from Boulder dam to the project, will aid in development of the first 150,000-acre unit of the vast reclamation

program. Work also is under way on tunnels for the project and the contractor is preparing to excavate canals.

## Arkansas

### Ignores Phone Order

**C**ITY officials of Fort Smith recently asserted that they will ignore action of the state department of public utilities in suspending a city ordinance which sought to make it illegal for the Southwestern Bell Telephone Company to install coin telephones without consent of the subscribers. They claimed that the department lacks jurisdiction over such matters.

Attorney for the city recommended to the city commission that a writ of certiorari be sought in Pulaski Circuit Court to quash the utilities department's order and proposed that the city "not participate in further proceedings before the department."

### Cease Waterworks Negotiations

**T**HE Little Rock city council voted unanimously recently to suspend all negotiations for the purchase of local properties of

the Arkansas Water Company until the value of the properties is determined by the state department of public utilities.

The action was taken on the recommendation of special attorneys for the city, who explained that the city was placing itself in the position of forcing the water company to show cause why present water rates should not be reduced and at the same time forcing the company to make public data on which a fair value of its properties could be determined.

The lawyers pointed out further that the city would not be obligating itself to purchase the company's properties, and would in no way endanger its position for further negotiations toward purchase of the waterworks.

It was the opinion of one of the attorneys that the water company is willing to give voluntary rate cuts to escape inquiry by the department of utilities, which probably would reduce rates from 30 to 50 per cent on a basis of a materially lower valuation on the properties.

## California

### Project Fails to Gain New Districts

**B**y a decisive vote of 881 to 240, farmers in three districts near Bakersfield rejected the proposal of annexation of their territory to the South San Joaquin Municipal Utility District of the Central Valleys Water Project.

The result of the election disclosed the second failure of the district to gain territory. Previous proposals have met with a similar fate, although a dissolution election held in the district proper failed to succeed.

Every area involved in the voting in this election rejected the annexation proposal in an overwhelming vote.

### Power Use Ban Denied

**S**UPERIOR Judge Bowron of Los Angeles, July 22nd, denied the preliminary injunction requested by the Southern Sierras Power Company, in an attempt to stop the Imperial Irrigation District from distributing electricity generated at Brawley.

The power company asserted the district had violated rules of the state railroad commission in building its transmission system,

and that the district system is a hazard to lives of company workmen and to company property.

Judge Bowron ruled that the superior court has no jurisdiction in enforcement of railroad commission regulations, and declared the question of hazardous construction must be proved in trial of the action. In view of the harm that would be done to more than eight hundred customers should he order the district to suspend service, the judge refused to grant a temporary injunction.

### Signs Bond Act for Test

**A**DVISED that it was "merely for a court test," Mayor Rossi of San Francisco, July 22nd, signed a revenue bond ordinance purporting to authorize the public utilities commission to finance municipal power distribution without a vote of the people.

As the mayor signed the ordinance, City Attorney O'Toole, who will be called upon to defend it before the state supreme court, expressed doubt as to its legality: "It is doubtful if the supreme court will ever confirm that the board of supervisors has the authority sought."

The expressed intention of the board of supervisors majority is to submit a proposal



No. 11

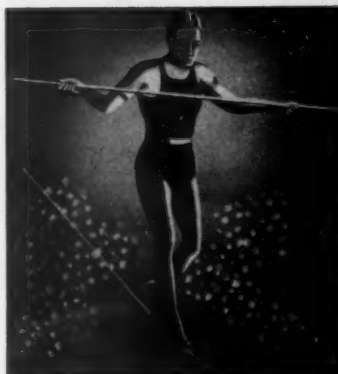
Aug. 27, 1936

# Pennsylvania's Page

## B A L A N C E

● The fundamental principle in transformer design is "*balancing of Stresses*." A "balanced" transformer possesses longer life, requires lower maintenance cost and has greater reliability. This is best accomplished by the use of the *circular coil*. Such a coil is balanced radially and axially against movement or distortion during heavy overloads or short circuits.

● These characteristics of the circular coil are well known to electrical engineers, and for that reason *all* Pennsylvania transformers, from the smallest distribution to the largest power size, have such coils.



## PENNSYLVANIA TRANSFORMER COMPANY

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to the voters only if the court fails to uphold its attempt through technicalities to assume bond issuing authority heretofore considered to rest with the voters. Attorneys generally consider the ordinance illegal, and it is recognized that there is no chance to obtain a court test of it in time to place a power distribution proposition on the November ballot after the anticipated adverse decision.

### Applications Approved

SAN Francisco's amended application for a grant of \$23,715,000 in Federal funds to apply on its proposed rapid transit system was approved, July 31st, by the three examining divisions of the Public Works Administration—legal, financial, and engineering.

The project was put on the list of those

eligible for Federal funds, having met all requirements from those three angles. A study of the project was continued by PWA officials, however, to determine whether an allotment should be made. It was indicated that this study might be continued for some time and that the project, because of its magnitude and the time required for its completion, might be deferred in favor of lesser projects calling for smaller grants and capable of earlier completion.

Final approval by the PWA examining division of the city's application for a \$6,775,200 grant for a subway project has already been announced by the administration. The grant, if finally allotted by Administrator Ickes and approved by President Roosevelt, will be applied to the estimated \$15,056,000 cost of constructing the Market street unit of San Francisco's projected rapid transit subway system.

## Florida

### Transportation Problem Discussed

THE scrapping of Miami's street car system was foreseen as an immediate possibility early in August when the city commission heard a report that the Florida East Coast Railroad had issued an ultimatum that crossings must be repaired before the next winter season or operation across railroad tracks must cease.

The commission was advised by the city engineer that the railroad was within its rights in the demand and that it would cost approximately \$25,000 to make the necessary repairs. The report was received as the commission laid plans for opening bids from transportation companies for an adequate bus system. After the bids have been received and studied, it is expected that reports also will be submitted to the commission on the feasibility of the city's taking over operation of its own transportation system.

## Illinois

### City Acquires Electric System

ANNOUNCEMENT was made, July 25th, by the city of Springfield, of the completion of negotiations for the purchase of the electric and heating business of its rival, the Central Illinois Light Co.

The price to be paid for the properties is \$7,200,000.

As a result of the transaction, which will be completed formally in September, the city water, light, and power department will be in

complete control of the city's light, power, and heating business and the question of the supremacy of municipal ownership, which has raged in Springfield for twenty years, will be ended.

Under the terms of the deal, the city will pay the \$7,200,000 to the utility company from funds to be secured from the issuance and sale of \$8,500,000 worth of 3½ per cent electric revenue bonds. These bonds will be paid off by the city's enlarged and unified municipal properties.

## Indiana

### Ouster Measure Fails

THE city council of Huntington failed for the third time, July 20th, to enact an ordinance giving it the power to remove Mayor Bangs from office. Supporters of the ouster measure failed by one vote to pass it over the mayor's veto, when one of their number deserted and voted to sustain the veto.

The ordinance would have ousted Mayor Bangs, who is still in jail for his refusal to disconnect private consumers from the municipal electric plant, which is being operated in competition with the Northern Indiana Power Company, for his antiutility and court contempt activities.

It is reported that supporters of the measure may give up the fight to pass such a law.

No. 8 of a series of messages to Public Utility executives pointing out opportunities for load-building by promoting the use of electric arc welding.

*Here's a business that's on the verge of a*

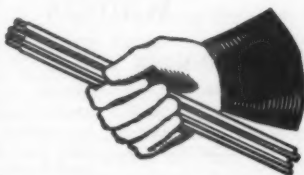
# K.W.H. BOOM

## Free Instruction for Power Salesmen

In several cities, the local Lincoln engineers are contributing their services to the instruction of power salesmen, periodically, in the various phases of arc welding application. These blackboard talks give the salesmen sufficient knowledge of arc welding so that they can discuss it intelligently with prospects. Are you interested in securing this service? Just get in touch with our main office in Cleveland.

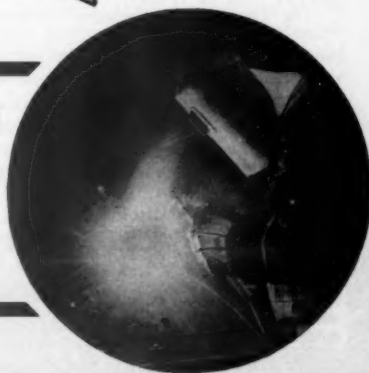
Every day, scores of new welding arcs appear in the industrial picture, brightening the outlook of power producers. Yet for every one of the myriad of arcs that are in use today—there are 80 potential, K.W.H.-consuming arcs! Think of it! Less than 2% of this vast power market has been touched!

What is YOUR return from this thriving market? Revenue to the tune of 1.75 K.W.H. for every pound of electrodes used! Isn't that worth calling for? We can point out to you the types of plants on which you can call and get results with a minimum of effort. Let us know if you want our services. **THE LINCOLN ELECTRIC COMPANY, Dept. YY-291, Cleveland, Ohio.** Largest Manufacturers of Arc Welding Equipment in the World.



*The average welder uses 5,000 to 10,000 lbs. of electrodes per year. This requires 1.75 K.W.H. per pound.*

# LINCOLN



## Battle for Natural Gas

THE one-year-old municipal gas plant of Indianapolis has been facing trouble recently in the form of persistent demands to lower gas rates through the introduction of natural gas into the city.

Some experts support the contention that the municipally owned Citizens Gas & Coke Utility Co. cannot meet the city's gas needs in a manner that will compete favorably with other cities as long as natural gas is barred from Indianapolis. The combined cost of distribution and fixed charges is said by a member-representative of the city plant's board

of directors to be 55 cents per thousand cubic feet.

The lowest cost at which coke-oven gas can be produced is estimated at 16 cents per thousand cubic feet—making a total of 72 cents for gas having a calorific content of 570 B.T.U., as compared with the 1,000 B.T.U. content of natural gas delivered in Detroit, Columbus, and other neighboring cities.

In addition to this demand, there are the alternative problems of straightening out the city's liability for private company property taken over with the system and the possible cost of retiring equipment presently used for manufacturing gas.

## Iowa

### Action Taken on Light Plant

AT a special session of the Griswold city council, July 21st, called to consider the petition of Griswold citizens requesting an election on the question of erecting a municipal power plant, it was decided that the council had no power to secure or use funds in defraying costs of making a survey of the proposed venture.

However, those in favor of calling a special election on the building of a new plant will be given the opportunity of raising funds in any legitimate manner to make the survey and estimate the cost of the project.

### Taxis Aid Railway Traffic

THE Cedar Rapids & Iowa City Railway Co., an interurban passenger line, announced last week that its "doorstep" pickup-and-delivery service for passengers, combined with a 35 per cent reduction in fares, has increased traffic revenue nearly 25 per cent.

Taxicabs provide this service at both terminal cities for 10 cents a person.

The scheme, started several months ago, was modeled after the pickup-and-delivery freight service now being used extensively by railroad companies.

## Kansas

### Would Oust Utility Company

THE Gas Service Company recently asked the Kansas Supreme Court in *quo warranto* proceedings to oust the Consolidated Gas Utilities Corporation from the natural gas service field at Wichita.

The Gas Service Company contended that

the city of Wichita infringed upon the former's franchise to serve the city by granting the utilities corporation a franchise to serve a large residential district there. The court was asked to declare the latter franchise void and to enjoin the utilities corporation from using Wichita streets, alleys, and other public property for a distribution system.

## Kentucky

### Rate Cuts Announced

THE Kentucky Utilities Company recently announced a reduction in electric rates by it and its associated groups, effective about August 1st, which it declared would result in an annual saving of \$75,000 to customers in 182 communities.

The announcement stated that this reduction, coupled with recent previous ones, would mean a total reduction in costs to consumers of \$561,900 annually, based on present use.

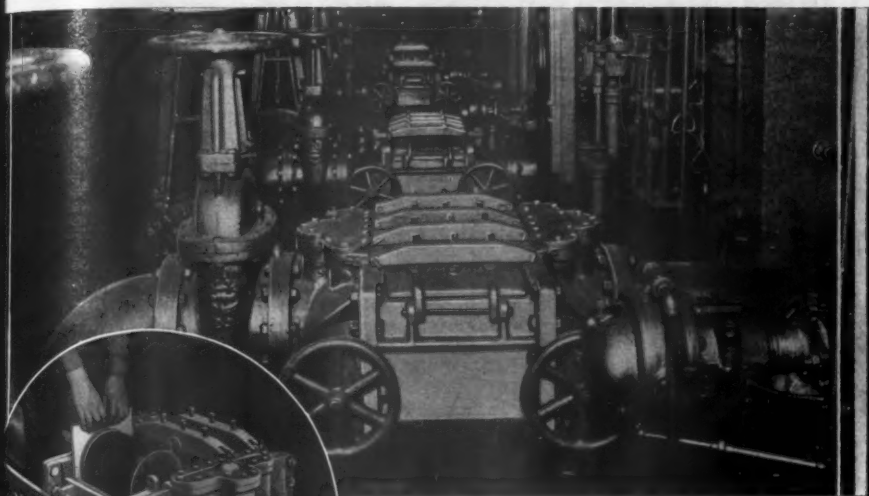
### Lower Rates Sought

MEMBERS of the Glasgow city council have circulated a petition asking that the Kentucky-West Virginia Utility Company's water franchise in the city be annulled or a reduction in the water rates for Glasgow be made.

Lower rates were requested two years ago, and later a suit was brought against the water utility, but it has been pending for the past two years.

# TWIN TRAINERS

## provide clear water for Hudson Avenue Station



**IN THIS FAMOUS PLANT**, as in hundreds of others, large and small, Twin Strainers are giving absolutely non-stop service, providing complete protection.

When a Twin Strainer basket becomes fouled, a few turns of a hand-wheel diverts the flow through the alternate basket. Then, when convenient, a few minutes suffice to remove the cover, lift out the fouled basket, dump it and replace. Meanwhile the alternate basket is in service and there is no interruption to the flow.

Twin Strainers can be installed anywhere in the line, in almost any position. They are invaluable for water, oil (lubricating or fuel) or any liquid sufficiently fluid to pass the basket mesh. They are made in several types and in all sizes; large ones may be motor-operated.

We also make Single Strainers, for use where constant flow is not essential. Write for the bulletin covering the easy solution to all kinds of straining problems. Ask for Bulletin A-6.

Cleaning Twin Strainers does not interrupt their service. One side is working, the other side is cut out and available for cleaning. A few turns of the hand-wheels direct the flow from one chamber to the other. Cleaning is easy, and quick. Twin Strainers may be installed in the pipe line, wherever convenient and accessible. Types for all services. Sizes 2" to 42". Elliott single strainers are used in lines permitting shutdowns for cleaning.

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District Offices in Principal Cities

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## Louisiana

### Power and Light Rates to Be Reduced

FULFILLING a preëlection pledge to lower power and light rates in Monroe, William Rodriguez, commissioner of finance and public utilities, has announced a new schedule for electricity furnished by the city-owned plant. The domestic schedule follows: First 50

kilowatts at 6 cents, second 50 at 5 cents, third 50 at 4 cents, fourth 50 at 3 cents, fifth 50 at 2 cents, all over 250, one cent.

The commercial schedule follows: First 100 kilowatts at 6 cents, next 250 at 5 cents, next 650 at 4 cents, next 4,000 at 3 cents, next 5,000 at 2 cents, next 15,000 at 1½ cents, over 25,000 at one cent.

Under the new sliding scale no discounts are allowed.

## Minnesota

### Natural Gas Plea Halted

APPLICATION for a one-year permit for a natural gas line from the Ford plant to the Waldorf Paper Products Company in the Midway district of St. Paul was unexpectedly withdrawn recently by the Northern Natural Gas Company after a 3-hour hear-

ing before the St. Paul city council, it is reported.

The withdrawal was made by the general counsel of the gas company, who declined to state whether the action would affect the previously planned application of his company for a general industrial franchise if the one-year permit was approved.

## Montana

### Prepares to Start Work on Dam

THE Rocky Mountain Power Company, granted a license to resume work on the construction of a hydroelectric dam on the Flathead river, started in 1930, has been busy

lately checking over the buildings, machinery, and 9 miles of railroad, for the purpose of determining the work which must be done before a large crew of men could be put to work again, which was to have been about the middle of August.

## New York

### Steam Service Investigation Opened

A BRIEF hearing, conducted by Milo R. Maltbie, chairman of the New York Public Service Commission, July 30th, formally opened the commission's investigation of the New York Steam Corporation, which serves 2,300 buildings in the financial and midtown districts of the city with steam for heating and power.

Although the exact purposes of the investigation were not made completely apparent, Chairman Maltbie said for the record that the commission felt it was "worthy of consideration to look into the only company which used the reproduction cost method of valuation." Representative of the corporation, however, believed there must be considerably more in the commission's plans than looking into the reproduction cost accounting. The appraisal, he said, was made in 1921 when the present

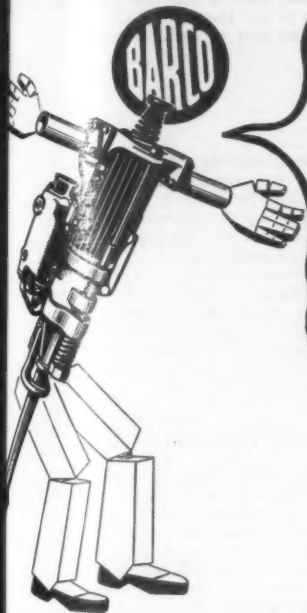
corporation took over the New York Steam Company and was made on the commission's orders. The property so appraised, he added, represents only about 10 per cent of the corporation's present properties.

The cost of the investigation will be borne by the steam corporation. The next hearing is expected to be held in the fall.

### Light Rate Reduction Ordered

THE state public service commission announced, July 23rd, that it had ordered the Long Island Lighting Co. to make a further reduction in electric light rates, which will save consumers an aggregate of \$77,500 annually. This reduction is in addition to one directed last December, which was estimated to save consumers \$1,066,500.

According to the commission, the decreases now ordered bring the total saving to electric users on Long Island to \$1,194,000 a year, in-



**I'M POWERFUL,  
PORTABLE, SIMPLE  
IN OPERATION, AND  
I WORK FOR  
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• The General Gas Superintendent of one of the important middle west power companies states, "We wish to inform you that to date we have used the Barco Hammer quite frequently and it has certainly performed like a top. It is difficult to realize now, how we ever got along without this equipment."

Breaking ... digging ... drilling ... driving sheeting or test rods ... cutting asphalt ... or back-fill tamping, the Barco can be used wherever the operator has room to work. It takes on the toughest kind of hammer job without the aid of auxiliary equipment.

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**BARCO** *portable* **GASOLINE HAMMER**



Easily packed in the back of a car or the corner of a truck, the Barco can be taken to a job quickly and cheaply.



Weather means nothing to the Barco ... It operates efficiently in cold weather or summer. Altitude does not affect its power.

cluding a \$50,000 annual decrease in wholesale power rates made by the Long Island Lighting Company.

The greater part of the new reduction will be effective in the Eastern division, which includes a large part of Suffolk county.

## Ohio

### Gas Rate Increased

THE Lancaster gas rate advanced from 35 to 36 cents August 1st, under the ordinance passed two months ago by city council.

An additional one-cent advance is slated for next June and for June 1, 1938, bringing the rate to 40 cents two years hence.

### Rate Fight Continues

EVEN a state supreme court decision, July 22nd, sustaining a commission order fixing a 55-cent natural gas rate for Columbus, has failed to bring peace in the three-sided rate controversy which has been raging for years.

The city had fixed a 48-cent rate, and an appeal by the Columbus Gas & Fuel Co. to the state commission subsequently resulted in an order establishing a 55-cent rate. The city has now lost its appeal to the supreme court, but contends that the court's language suggests a compromise rate between 48 cents and 55 cents. The utility claims that even 55 cents is inadequate.

There was a possibility that the city might carry the case to the U. S. Supreme Court.

### Refund Ordered by Commission

THE Ohio Supreme Court, July 22nd, affirmed "in all respects" the order of the state utilities commission, directing the Ohio Bell Telephone Company to refund to Ohio subscribers \$11,832,264. Six of the seven

judges concurred in the decision. The seventh did not participate.

The decision climaxed a 12-year battle of Ohio telephone users to obtain lower rates and to collect amounts paid during that period under protest as excessive.

The telephone company is expected to carry the case to the U. S. Supreme Court. Should the company decide not to appeal the case, or should it lose its appeal, between 58,000 and 60,000 subscribers in Columbus will benefit from the distribution of \$2,436,916 allotted by the commission to that city.

### Seek More Data on Detroit Plan

IN the hope of working out some agreement between the city of Cleveland and the East Ohio Gas Co. (which serves the city) that would produce lower rates and do away with the necessity of rate negotiations, legal fees, and expensive court costs every time a rate expires, members of the city council utilities committee decided to obtain more information about the recently suggested consumers' dividend plan of fixing natural gas rates.

Accordingly, E. P. Fisher, consulting engineer of Detroit and one of the originators of the "Detroit Plan," whereby the Detroit Gas Co. allows consumers to participate in dividends earned above a basic allowance, has been invited to explain the Detroit scheme to a meeting of the Cleveland committee.

The attitude of the East Ohio Gas Co. on the acceptability of such a rate arrangement is not known, but the company's rate experts have been giving the plan careful study.

## Oregon

### Power Dam Halts Fish Run

A CRISIS in the Columbia river's fifteen million dollar salmon industry, upon which many Oregon and Washington people depend for their livelihood, appeared late in July as the result of the torrential condition of the Columbia river at the Bonneville dam site.

Thousands of migrant salmon and sturgeon were locked in an eddy, unable to pass up-

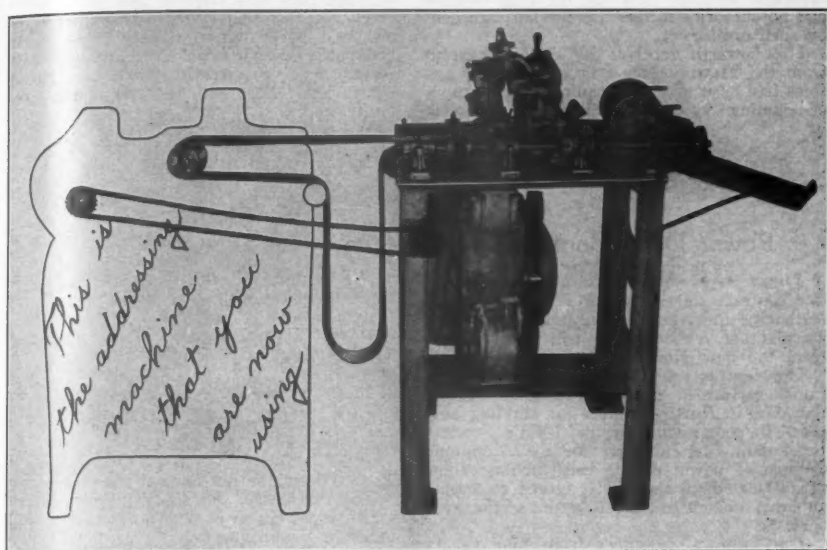
stream, while fishery executives of the two states sought a way to relieve them. It was expected that temporary channel cutting between the coffer dam and the Washington shore might partially solve the existing problem, but the peak of the fish run, which should come this month, will present a bigger problem. Some fish experts predict that next year will witness the virtual extinction of the salmon industry.

## Pennsylvania

### Municipal Plant Given Setback

THE proposed municipal power plant at Fleetwood received a setback when the

Berks county court declared invalid two ordinances passed by the city council to pave the way for a \$100,000 generating plant and distribution system.



## Here's a Bill Printing Machine that can be used with ANY Addressing Machine

Instead of continually paying money for pre-printed bills, convert your *present* addressing system into a *combination* printing and addressing system. You can readily do it with the

### Elliott Bill Printing Machine

This machine will pull blank paper, from rolls, under the addressing head of your present addressing machine to receive the addresses. It will then continue feeding this paper through the printer (shown above at the right), where it is printed on the front and back, scored, dated and chopped off.

With the Elliott Bill Printing Machine you not only save on printing bills, but you speed up your addressing operation, as it is really an automatic feed through the addressing machine instead of a hand feed.

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Write **NOW** for details of this time and money saving combination. State what addressing machine you are now using, size of list, etc.

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175 ALBANY STREET, CAMBRIDGE, MASS.

SALES AND SERVICE OFFICES IN ALL PRINCIPAL CITIES

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The court held that, notwithstanding two favorable borough elections, the local officials had no authority to increase the borough debt by such ordinances.

The borough receives its electric current from the Metropolitan Edison Company and steps had been taken to acquire the company's distributing system. Difficulties developed

and the power company refused to sell. The borough then took steps to pass legislation to erect a distribution system in addition to the proposed power plant. The validity of the ordinances was attacked on the grounds that certain legal requirements were not carried out in accordance with the acts of the legislature.

## Tennessee

### Power Deals Completed

UNDER terms of the first purely industrial contract signed by the Tennessee Valley Authority, the Aluminum Company of America plant at Alcoa, Tenn., will obtain power from the new Norris dam.

The contract provides that the Aluminum Company furnish electricity from its Santeeah dam in North Carolina for building purposes in construction of the TVA's Fowlers Bend dam. In exchange for the Aluminum Company's power during construction of the \$15,000,000 dam, the TVA agreed to supply an equal amount to the Alcoa unit of the company.

The contract, in effect from four to six years, also allows the Aluminum Company to buy Norris current in blocks up to 20,000 kilowatts. The rate charged will be the regular TVA rate for transmitted secondary power.

The TVA has announced that it would build 154,000-volt lines from Norris dam to the Alcoa plant and from Santeeah to the Fowlers Bend dam site in southwestern North Carolina. It will begin delivering power to Alcoa June 1, 1937, while the Aluminum Company will begin furnishing electricity at Fowlers Bend dam January 1, 1937.

A second deal has been made with the Standard Aluminum & Alloy Company of Chicago, which announced recently that it had contracted to buy approximately \$3,900,000 worth of TVA power a year for its plant at Decatur, Ala. Consummation of the contract awaits formal government approval and the completion of TVA facilities in northern Alabama.

The signing of the first contract has already been denounced by Dr. Hugh S. Magill, director of the American Federation of Utility Investors, on the grounds that the contract is not only the beginning of a drive to sell power to large industrial consumers in the Tennessee valley—and, therefore, a further encroachment by the Federal government on the rights of private business—but the low rates which the TVA is offering will result in large losses which must be borne by the taxpayers of the entire country.

### County Receives First Electric Current

RESIDENTS of Meigs county, 100 years old and just receiving its first electric power,

recently thronged the courthouse at Decatur, Tenn., to witness a demonstration of appliances operated on the newly arrived TVA current, which will serve approximately 500 customers.

Meigs, a rural county, is surrounded by counties that have had electric current for years.

### Natural Gas Proposition Approved

UNVEILING the old natural gas controversy unexpectedly, the Knoxville city council recently passed an ordinance on first reading to grant Sunbright, Tenn., gas interest a 50-year franchise to install and operate a city-wide natural and artificial gas distribution system. Natural gas delivery within eighteen months was promised. Under local law, however, the ordinance must survive attacks on its second and third readings.

The Knoxville Gas Co., for the second time in five years, has indicated to city officials it would be willing to consider distributing natural gas in Knoxville, providing an adequate supply can be found near the city. At the same time, public ownership advocates argue that natural gas introduction would impair the earning capacity of the proposed municipal electric plant.

Despite these opposing contentions, the Knoxville city council proceeded recently with conferences concerning the proposed introduction of natural gas by financial interests developing fields at Sunbright, Tenn.

A compromise whereby the Sunbright supply would be purchased and distributed by the Knoxville Gas Co. was thought to be a possibility.

### First Current Sent Out

WITHOUT ceremony, the first hydroelectric power was generated at the Tennessee Valley Authority's Norris dam, July 29th, and flashed to Wilson dam in Alabama over a 220-mile high voltage line.

"Our first power checked through to Wilson dam at 7:28 P. M.," the construction superintendent announced. "The test was very satisfactory."

Test runs will be continued for sometime, but commercial operation of the dam will not begin until later. A definite date has not been set.



## "Orphan Annie" Water Meters are sad objects, too

### "Little Orphan Annie"

"O. A." Meters are meters orphaned by obsolescence, deterioration, changes, new models. A few years of service and after a futile search for new parts, you scrap them.

There are no "Orphan Annies" among Trident or Lambert Water Meters. For all parts of these Quality water meters are interchangeable—and the latest modern improved parts fit easily and perfectly into Tridents and Lamberts that have seen a generation of service—and will fit, 20 or 30 years from now, into these meters you buy TODAY. In other words, protecting the value of your investment well-nigh indefinitely.

For quality, for value, for long years of sustained accuracy and low maintenance cost, Trident and Lambert Water Meters—a model for every purpose. Neptune Meter Company (Thomson Meter Corp.), 50 West 50th Street (Rockefeller Center), New York City...also...Neptune-National Meters, Ltd., Toronto, Canada.



# TRIDENT

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**OVER 6 MILLION MADE AND SOLD**

Trident Meter,  
Frost Proof Type,  
installed 1899,  
lasting cut away  
to show modern  
parts installed.

## Texas

### Phone Firm Submits Plan

**A**N agreement to pay the 4 per cent gross receipts tax for all of 1936, provided the people approved the new franchise for the Southwestern Bell Telephone Company in April was made recently with Dallas city officials by the division superintendent of the communications system of that city, it is reported.

The superintendent announced that "any action which will complicate the telephone

franchise matter, or which will impose an unfair assessment on telephone users will be resisted."

His agreement to pay the gross receipts tax for all of 1936, if the franchise is approved, without controversy as to the amount from April 22nd on, will mean the city's general fund would benefit approximately \$100,000 more than is in sight now. The city's budget is being made up on an expectation of obtaining only approximately \$45,000 from the company for 1936.

## Virginia

### Water Rate Rise

**A** 20-CENT increase in the minimum charge for Richmond city water that will jump

the householders' monthly water bill from 66 to 88 cents has been recommended to the common council by the city council committee on public buildings, properties, and utilities.

## Washington

### Freezing Plant to Aid Dam

**A** GIGANTIC refrigeration plant—large enough to freeze 50 pounds of ice daily for 4,000 families—will create a frozen auxiliary "dam" at the Grand Coulee project.

The mammoth plant will be established to

freeze a sand barrier at the east side of the Columbia river excavation operations, in order to stop the sand slides which have interfered continually with excavation to bedrock. The freezing system was adopted after attempts to stop the slides by resloping proved futile.

## West Virginia

### Gas, Water Increase Probed

**A** PPLICATION of the Southeastern Gas and Water Company, which seeks to increase rates to consumers at Danville and Madison, Boone county, has been heard by the public service commission.

The company previously filed a new tariff which would put in effect new rates involving an increase from 25 cents to 35 cents per thousand cubic feet of gas sold to consumers. The commission, however, had set aside the tariff, pending its investigation of the company's books and properties.

## Wisconsin

### More Time Granted to Buy Utility

**T**HE state public service commission recently gave the village of Poynette another four months in which to complete acquisition of the Wisconsin Power & Light Co. electric plant, which it decided last year to buy. The state commission subsequently set the price at \$33,000.

Poynette citizens, July 28th, were asked to authorize the necessary bonds, but their vote was unfavorable.

The extension of time was given by the commission after village officials testified they believed many voters had been confused by the alternative questions at the referendum on methods of financing the acquisition. Another referendum may be held, they stated, but only on the question of issuing utility mortgage bonds.

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[ No other machine like it at any price. Saves its cost quickly.  
Essential wherever stencil duplicators or offset photography  
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Dependable service—long hours  
of it—on and off—off and on! Utilities  
put flashlights and batteries to the sever-  
est tests, but Ray-O-Vac industrial flash-  
lights and batteries have proven they can  
take it. That's why each year more and more  
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Switch—exclusively a Ray-O-  
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BOSTON... *Canary*

ST. LOUIS... *Blue*

BUFFALO... *Buff*

INDIANAPOLIS... *Pink*

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*A two-way help for your business*

THE color "Signal System"... as developed by Hammermill... has a twofold use in your business. First, you can use the thirteen colors of Hammermill Bond to designate different departments, different branch offices, different products, different processes. As a secondary use, you can match colors of Hammermill Bond with Hammermill Bond envelopes, Hammermill Mimeo-

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Here's how it works: If blue designates the St. Louis office, or possibly a main office department, its blue letterhead on Hammermill Bond can be matched exactly with bulletin forms on blue Hammermill Mimeograph, with blue Duplicator sheets, with blue record cards on Hammermill Bristol; with blue Hammermill

Bond Envelopes to contain whatever items you may choose to mail.

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COMPLETE COMBUSTION  
**UNIT**

**TAYLOR STOKERS**  
**AECO FURNACES**  
*(Water Cooled)*

**AECO ASH HOPPERS**

*Economically*  
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**AND WE CAN PROVE IT!**



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**MERCOID SWITCHES**  
ELIMINATE CONTACT  
TROUBLE. THEY ARE  
NOT AFFECTED BY  
DUST, DIRT OR  
CORROSION.



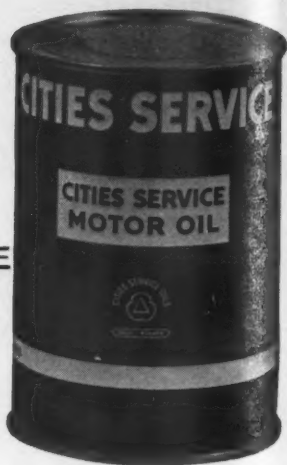
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Moderately priced, Cities Service Motor Oil is the choice of particular motorists who want an economical lubricant—yet one that does not sacrifice performance to price.

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*Motor Oil*



## *The* PERFECT PENNSYLVANIA OIL

Refined with all the care and skill that are the result of 73 years of refining research and experience, this super-lubricant gives you triple-duty protection—it seals, cools, lubricates.

Koolmotor Oil not only resists heat, but actually carries heat away from friction surfaces. It is the perfect Pennsylvania oil and with it in your crankcase you are assured of care-free miles of motoring enjoyment.

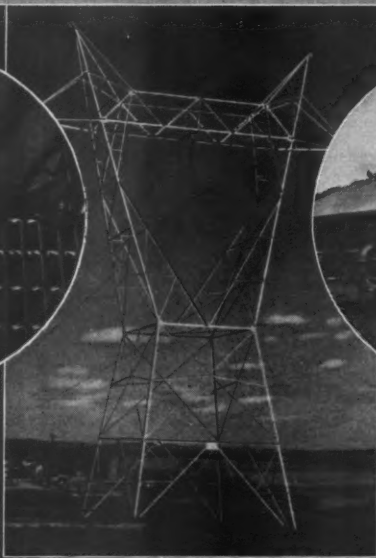
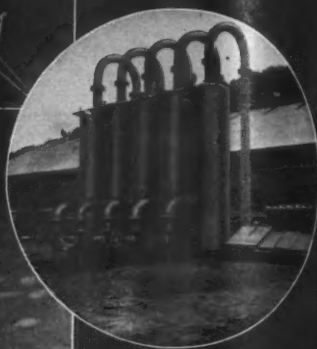
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*Motor Oil*

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The fact that Blaw-Knox Products are in accord with

the rigid standards of Public Utility purchasing is proof not only of the merit of the products themselves but of the house behind the products.

# BLAW-KNOX COMPANY

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## How The Gas Waster Was Caught By Burnham

WHEN gas is used for automatic heating, no one knows better than you, that it is the heat lag that eats up gas and causes dissatisfaction with bills.

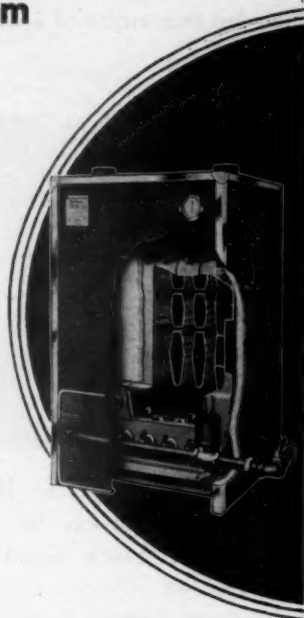
It is the drawing of the cool air into the fire box and through the boiler that cools it down between automatic firings. Still the burners must have air.

The Burnham Boiler cuts down heat lag with its built-in cast iron draft diverter and positive control of primary and secondary air. Overcomes strong chimney pulls.

The diverter also permits safe and satisfactory operation of boiler during periods of down draft, or in event of accidental blocking of chimney.

Its field economy operation equals that of the shop test.

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Manufacturers of Heating Equipment Since 1873

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No. 5100

Lustrolier No. 5100 is designed particularly for the lighting of department stores especially the main floor where the majority of customers are received and receive their first impression of a wide variety of merchandise.

## BEFORE

The Northtown store of Wieboldt Stores, Inc., Chicago, showing the lighting from the old style glaring direct lighting fixtures



Every live up-to-date merchant recognizes that good lighting is his most effective salesman. It is a well known axiom that "Merchandise well displayed is half sold." With this thought in mind, thousands of merchants all over the country are modernizing their stores and good illumination should be their first step in this process.

Permaflexor Lustrolier No. 5100 is the answer to the modern merchant's illumination problem. Predominantly an indirect lighting fixture, it also has a low direct lighting component transmitted through a large stippled heat resisting glass roundel in the bottom member.

Equipped for use with 750, 1000, or 1500 watt lamp, Lustrolier No. 5100 offers the public utility a lighting fixture which not only gets business, but builds up the lighting load. Recommend Lustrolier No. 5100 for the modernization of department stores.

## AFTER

The same store after installing Lustroliers No. 5100. Note the absence of glare and sharp shadows, but their place soft evenly diffused illumination



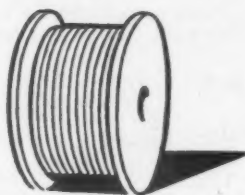
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A complete vibration dampening service including controlling devices, has been developed by A. C. S. R. engineers after exhaustive study of the basic theories of vibration as well as the visible phenomena. Aluminum Company of America, 2134 Gulf Building, Pittsburgh, Pennsylvania.

## ALCOA · ALUMINUM



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## Every Gas-Fired Boiler Should Be PROTECTED Against LOW WATER

• We do not claim to know it all—BUT we do know that danger of Low Water lurks in the boiler room. In selecting positive Boiler Protection, you should take into consideration equipment which was especially designed and constructed for this important task—

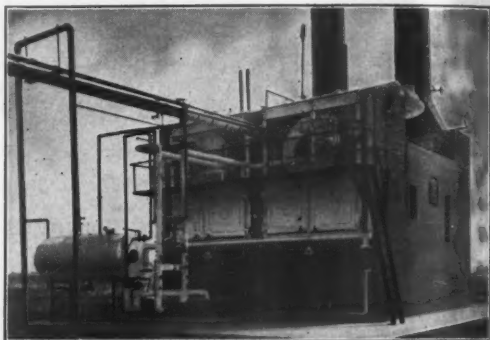
### The Kisco Automatic Water Feeder The Kisco Return-to-Boiler System

There must be a good reason for the thousands of installations in plants from coast to coast. These boiler users quickly recognized the losses which were formerly suffered, also the Protection which their Kisco System Provides.

#### For Boilers up to 1,000 H.P.

Here is a typical Kisco installation on two 300 H.P. Gas-Fired Boilers operated at 150 pounds pressure.

This power plant equipped their new boilers with a special designed Kisco Return-to-Boiler System, before the building was completed, in order that they would enjoy the Efficiency and Protection which the KISCO System provides.



#### Reasons Why The Kisco Return-To-Boiler System IS "The Choice of the Well-Informed"

1. A Completely Automatic, Individual, Compact Unit.
2. The ONE System Which Handles The Work of THREE.
3. Reclaims both High and Low Pressure Condensation.
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5. Does Not Require One Pound of Live Steam for its operation.
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*It Is The Pioneer and Recognized Leader—Serving Boiler Users from Coast to Coast. Write for Complete Particulars—Specify Bulletin P. U. 8-2.*

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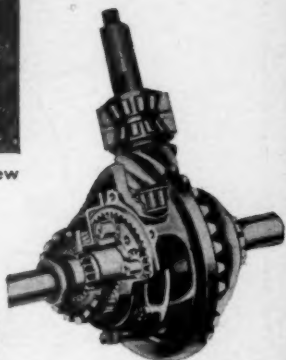
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An International with 2-speed rear axle. These trucks bring new performance and economy to jobs like yours.



## POWER when you need it —SPEED when you want it in the INTERNATIONAL 2-Speed Axle

THE 2-speed rear axle trucks available in the International line now make it possible for truck users to obtain both high-speed and low-speed performance in one unit. A simple movement of the shifting lever changes the axle ratios instantly and silently without stopping the truck. The low-gear ratio provides power for hauling heavy loads through tough going and up steep hills, while the high-gear ratio allows high speeds on level roads or with light loads.

The extreme flexibility of these dual-range, full-floating rear axles enables the International 2-speed axle trucks to do more work at lower cost.

When you see these 2-speed rear-axle Internationals in action in a tough spot, you will get a good idea of what they can do for you. Ask the nearest Company-owned branch, or International dealer, for a demonstration. There is a full range of other trucks in the International line, from the Half-Ton unit to the powerful Six-Wheelers.

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# INTERNATIONAL TRUCKS

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**ELECTRIC RANGE  
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## Years Ahead In Features

1. Flavo-Seal Covers seal in flavor and food value.
2. Heat-resisting bakelite cover knobs.
3. Triple-thick—heats quickly and thoroughly.
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Cooks food the healthful waterless way. Economical—prevents food shrinkage. The triple-thick aluminum with straight sides and flat bottoms saves fuel. Set consists of a 5 quart Dutch Oven, 2, 3, and 4 quart Sauce Pans, and a 10 inch Covered Skillet.

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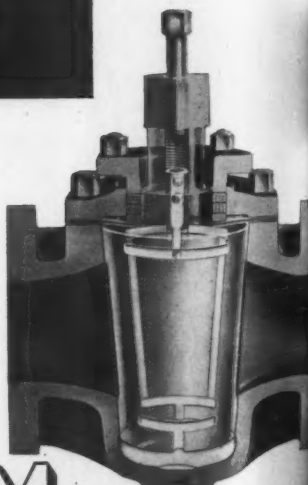
Emco-Nordstrom Valves and Nordstrom Standard Valves are available in many types of alloys. Corrosion and erosion-resistant. Always easy to turn. Non-sticking. Ask for bulletins.

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*Cross-sectional view of standard type Nordstrom Valve*

# NORDSTROM

*Lubricated* **VALVES**

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# ESTATE ELECTRIC RANGE

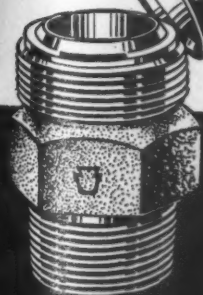
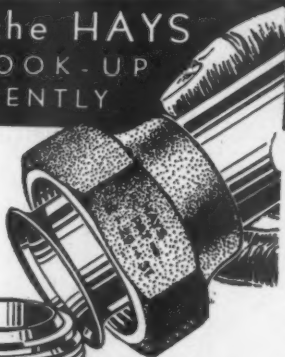


NO wonder dealers and sales-people are excited about the pace-setting Estate Electric Ranges! Compare. They have styling all their own. Balanced oven heat and single dial control—other exclusive selling advantages. Keep step with the times. THE ESTATE STOVE COMPANY, HAMILTON, OHIO.

Use the HAYS  
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EFFICIENTLY

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HAYS MFG. CO.

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**ARCO**  
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Here is a trick . . . and it is not ventriloquism . . . that busy executives are doing dozens of times every day and it saves time, money and nerves.

You merely flick a key and talk. Instantly your voice, *broadcast* through the super-sensitive microphone or *whispered* in privacy through the special hand set, is heard in the Auditor's Dept., Engineering Dept., Operating Dept.—in any part of the organization selected by your forefinger.

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Numbering among the thousands of TELEMATIC users are New York Edison Co., Kansas City Power & Light, Public Service of N. J., Columbus Street Railway Power & Light, and many others. The coupon below makes it easy for you to secure the names of users in your locality so that you can check their experience and satisfaction with Telematic.

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NEW YORK CITY

Branches in all Principal Cities

DICTOGRAPH PRODUCTS CO. Dept. PU-1  
580 FIFTH AVE., NEW YORK, N. Y.

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● For handling coal in the power plant the belt conveyor offers a reliable, flexible unit of large capacity and economy.

Link-Belt conveyors of this type have been highly perfected. The service given by the conveyor depends largely on the construction of the idlers, and it is upon these that Link-Belt has focused particular attention; building into them the results of years of experience.

Link-Belt equipment for the power plant includes conveyors of the belt, apron, flight, screw and other types; bucket carriers; skip hoists; crushers; feeders; weigh larries; car dumpers; water intake screens; locomotive and crawler type cranes; underfeed screw type stokers; portable belt conveyors; bucket elevators and a complete line of accessories—equipment that has built into it tried and proved features, demonstrated as most sound and practical in hundreds of power plants.

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# **LINK-BELT**

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Thousands of C. H. Wheeler installations testify to the value of condenser specialization.

Turbine Efficiency depends directly on Condenser Efficiency.

In all cases we build the machines to fit the particular conditions of the plants in which they go.

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**"INDUSTRIAL CELLS"**

To give you far more dependable service than you ever had before—the No. 1095 USALITE Industrial Cell.

Bureau of Standards specifications call for 400 minutes to a 0.9 volt cut-off. No. 1095 will give over 80% of its service above the 1 volt cut-off,—more than double the specifications of U. S. B. O. S.

"25 years of knowing how" is back of the dependability of USALITE Products, laboratory tested and inspected. Expert supervision assure longer life and uniform quality. 1095 USALITE has captured the demand of Railroads, Chemical, Powder, Oil and Gas Companies, Utilities and Coal mines everywhere.

We'll be glad to send you FREE samples of 1095 cell for inspection and trial tests. Write today!

**UNITED STATES ELECTRIC MFG. CORP.**

222 West 14th St. New York  
CHICAGO—323 West Polk St.

# VULCAN

## SOOT BLOWERS

*Durable  
Dependable  
Service*

**VULCAN SOOT BLOWER CORPORATION**  
*Du Bois* *Pennsylvania*

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## New Smartness Styling « » Salability

TRIM, smooth-flowing lines... lustrous color finishes. The kind of eye appeal that attracts feminine admiration. And new features that are useful... that produce sales response. Get the facts about L&H quality-built ranges.

A. J. LINDEMANN & HOVERSON CO.  
Milwaukee Wisconsin  
NEW YORK CHICAGO SAN FRANCISCO

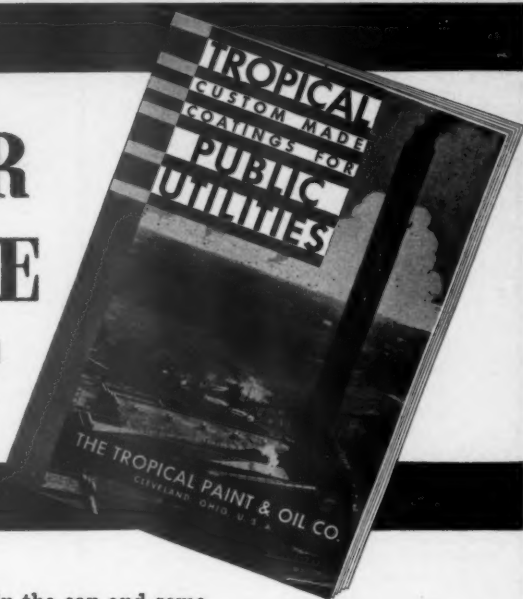
Illustration at right  
shows COOK-A-DOR



**L&H Advanced  
ELECTRIC RANGES**

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# SEND FOR THIS FREE BOOKLET



**T**WO paints may look alike in the can and sometimes even on the surface to which they are applied, yet they may be constituted of widely differing ingredients and intended for as widely different uses.

Lead is of great value in some paints yet in others it is a detriment. Similarly linseed oil is indispensable in some paints while in others china wood oil is far superior.

Paints must be selected according to the service they are expected to render, the conditions of their use and abuse and the surfaces to which they are to be applied.

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OF  
71  
CUSTOM MADE  
PRODUCTS**

## TROPELITE

The coating of a thousand uses. Clear, transparent, acid and alkali proof. Has high dielectric resistance. Tough and resilient. For use where all other coatings have failed. The ultimate in surface protection.

**The Tropical Paint & Oil Company**  
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## VOODOO

Primitive superstitions . . . half understood truths . . . fetishism . . . to this day they persist—deeply rooted, from ages past when savage man clumsily worshipped strange and terrible gods.

Akin to these beliefs are certain popular fallacies in which credence is placed even by the informed.

It was one of those fallacies—that pressure relief is alone sufficient for domestic water heaters—that Kitson attached with the searching light of indefatigable research in laboratory and field. Tests made and data collected over a period of years brought out the uncontested truth: *true emergency relief depends upon temperature limitation.* And, upon those findings, Kitson established the operating principle of the entire line of Automatic Devices made by Kitson under Lovekin patents. *Kitson Devices give positive relief.*

Very interesting literature, based upon this exhaustive investigation of temperature relief, is available to interested executives. A request on your business letterhead will bring it to your desk. No obligation of course.

**KITSON COMPANY**  
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Manufacturers of: Kitson Safety Devices (Lovekin Patents)  
for Domestic Water Heaters • Quality Brass Goods for  
Gas, Water and All Plumbing Uses.

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### All Types PIPE LINE SUPPLIES

Goodman Stoppers  
Gardner-Goodman Stoppers  
Goodman-Peden Stoppers  
Goodman Cylindrical Stoppers  
Bags—Rubber, Canvas Covered  
Plugs, Service & Expansion  
Pumps  
Masks  
Brushes  
Tape—Soap & Binding

*Catalogue mailed on request.*

**SAFETY GAS MAIN STOPPER CO**  
523 Atlantic Avenue  
Brooklyn, New York

## Star Brass Manufacturing Co.

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BOSTON, MASS.

*Makers of Highest Quality*  
"Non-Corrosive" Pressure and Vacuum Gages — Safety and Relief Valves — Globe, Angle and Gate Valves—Water Gages—Gage Cocks Whistles



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No weak spots for corrosion to attack—The Bethanized Wire can be wrapped around its own diameter without breaking or flaking its corrosion-defying zinc coating.

**AT LAST!**  
**CHAIN LINK FENCE THAT CAN**

***STAND THE WRAP!***



Here are the quick facts. Unlike other chain link wire, the zinc coating on Bethanized Wire is chemically pure—free from any vulnerable iron content. It is smooth and uniform—free from rough or thin spots. And it is extremely ductile—not hard, brittle and flaky. Twist the wire, bend it double, wrap it around itself—you just can't break the zinc coating and expose the steel core to corrosion.

Think what that means. An Anchor Fence of Bethanized Wire is a fence with no flaws in its pure zinc armor—no cracks or crevices through which

corrosion can creep in. Because Bethanized Wire can "stand the wrap," these Anchor Fences stand up for many years beyond the lifetime of any other chain link fence—even in industrial atmospheres that are heavy with soot, salt, sulphur and other corroding agents. And now there's no premium—no extra cost—for Bethanized Wire.

Send for the free book of facts about these better looking, longer lasting Anchor Fences—and about Anchor's nationwide sales and erecting service. Write today—to the address below.

**ANCHOR Fences**  
**OF BETHANIZED WIRE**

**ANCHOR POST FENCE COMPANY, 6630 EASTERN AVENUE, BALTIMORE, MARYLAND**

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Never before has The Babcock & Wilcox Company had such a wide range of equipment suitable for modernizing older power stations that are now obsolescent because of the great strides made during the past ten years in the economical generation of power.

Since 1929, the Company has developed, or announced as available: new types of boilers, a new water-cooled furnace construction, a pulverizer of 50-tons capacity, new types of fuel-burning equipment, and many improvements made in its other products.

The Babcock & Wilcox Company is fully prepared to help producers of power to carry out modernization programs involving changes, such as the installation of modern slag-tap furnaces with water-cooled floors, high-pressure boilers super-imposed on existing low-pressure systems, or high-pressure high-temperature units.

Babcock & Wilcox Engineers will be glad to discuss with executives and engineers the economic application of these new and improved products.

The Babcock & Wilcox Company . . . 85 Liberty Street . . . N. Y.

**BABCOCK & WILCOX**

C-41-A

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*It's easier to sell the  
radio equipped with  
nationally-known tubes*

*—just as IT'S EASIER TO SELL  
THE RANGE EQUIPPED WITH  
NATIONALLY-ADVERTISED,  
NATIONALLY-KNOWN  
ROBERTSHAW  
OVEN-HEAT-CONTROL*

*Nationally Advertised - Known to Women*

Take a famous name with a famous name, and sales for the product are made easier, quicker, smoother.

Robertshaw speeds the sales of modern gas ranges because its oven-heat-control is known to every woman.

Once a woman hears that the range is Robertshaw-equipped, she knows she is buying a combination of the best in modern cookery. She knows that her range selection is a wise one. The name Robertshaw will help you to sell ranges because it is a nationally-known name.

ROBERTSHAW THERMOSTAT COMPANY, YOUNGWOOD, PENNA.



*Sell the ranges equipped with*

**ROBERTSHAW OVEN-HEAT-CONTROL**  
MORE THAN 2,500,000 IN USE

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# BOILER SAFETY BOILER SAFETY BOILER SAFETY BOILER SAFETY

## ABSOLUTELY DEPENDABLE

and 4 times as  
Quick-Acting

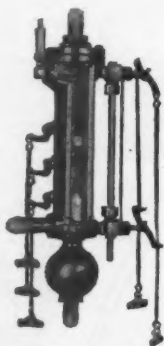


● The mechanical logic of the Reliance design, proved by 51 years of on-the-job service, is evident at once to any engineer.

Boiler water level rises—float and whistle valve operate *instantly*. Water level falls—again, immediate signal.

The working parts are above the water, safe from dirt or scale. The floats, made of fused monel and guaranteed unsinkable in service, are highly buoyant, instantaneous in action. Tests show the Reliance alarm more than 4 times as quick-acting as non-float alarms.

Dependable? More than 125,000 sold—and not one known failure in an emergency! Specify Reliance for prompt sure safety.



No. 5 Alarm, for High and Low Water

The Reliance Gauge Column Co.  
5930 Carnegie Avenue  
Cleveland, Ohio

# Reliance

SAFETY WATER COLUMNS

## DAVEY LINE CLEARING SERVICE

### How Much Did the Trees Grow

IN SOME SECTIONS there may be a little more growth forced out this year but, for the most part, trees are through growing. They still have a few chores to do in getting ready for winter, but no further activities that present a problem from a line clearing standpoint.

But what you are interested in is the amount of 1936 growth that was completed. Are the trees into your wires now? Will the new growth next spring crowd around your wires to an extent that will interfere with your service? If so, are you going to wait for trouble or head it off before it happens?

Davey line clearing service is made to order. It is flexible. It is designed to give you just what you want, quickly, inexpensively, and with day-after-day reliability.

We shall be glad to arrange to have a Davey representative consult with you.

THE DAVEY TREE EXPERT CO.,

Kent, Ohio

## DAVEY TREE SURGEONS

## The Trend to Dictaphone Sweeps On

To your secretary, it means all that note-taking time is released for valuable work. To you, it means instant dictation facilities always available, without dependence on anybody else. That's why we say this modern dictating instrument doubles your ability to get things done.

## DICTAPHONE

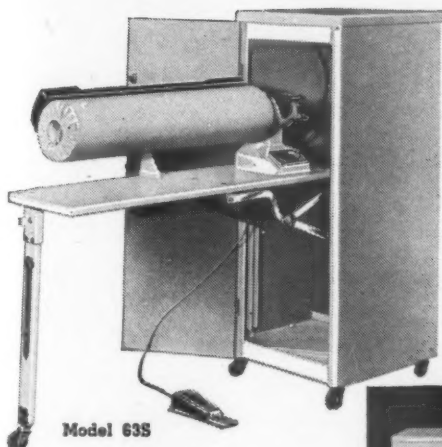
Sales Corporation

420 Lexington Avenue  
New York City



# FOLD-A-WAY

boosts sales of IRONERS and current (1230 watts per hour)



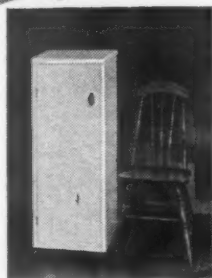
Model 63S

*Economy of floor space appeals to housewives everywhere*

## Takes No More Floor Space Than Kitchen Chair

It's easier to sell what the housewife wants and cannot get in any other ironing machine. The Thor Fold-A-Way also gives her all three types of control—knee, foot and finger-tip. This patented space-saving construction gives the Thor dealer a powerful, exclusive merchandising advantage.

With only four per cent saturation, ironers afford a big, unworked field for merchandising profit. Find out how Thor's effective promotional helps and popular-priced rotary line are boosting ironer sales close to those on washers for many aggressive dealers. Send for all the facts today.



Balanced, easy lifting. Shoe pulls up with one finger. Self-locking, rigid, folding leg and table.



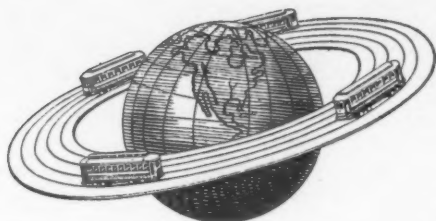
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**E. N. HURLEY, JR., PRESIDENT  
HURLEY MACHINE COMPANY  
54th Ave. and Cermak Road, Chicago, Ill.**

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**T**HE Transit Industry, even in the most trying times, has never relaxed its will to progress. The evidence of this may be seen in the many expansion and modernization activities throughout the country.

This Organization has grown up with the Transit Industry and we shall be pleased to serve its new additions as we served the Industry as a whole for over 40 years.



**BARRON G. COLLIER**

INCORPORATED

CANDLER BUILDING, NEW YORK CITY

WITH OFFICES AND ASSOCIATED COMPANIES  
THRU THE UNITED STATES, CANADA AND CUBA

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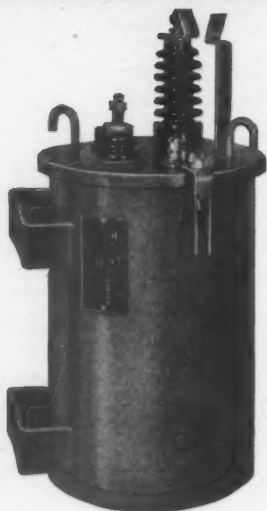
Design—Supervision of Construction  
—Reports—Examinations—Valuations

20 North Wacker Drive

Chicago, Ill.

# Check These Four Points of

## *Superiority* of **Wagner** RURAL LINE DISTRIBUTION TRANSFORMERS



**W**agner type HEB-F rural line distribution transformers meet the need for a small inexpensive unit designed for application to lines of 13200 Y volts and below.

Transformers for this class of service are manufactured in the 1- and 3-kva sizes for operation on single-phase, 60-cycle lines where the high-voltage and low-voltage neutrals are interconnected and solidly grounded. All are oil-filled, self-cooled, 55° C. temperature rise. They are obtainable for voltage classes of 2400, 4800, 6900 and 7620 volts with solidly grounded neutral for operation on 4160, 8320, 11950 and 13200 volt lines.

Service lines can be easily connected, since core and coils are fastened to cover and cover may be rotated to any desired position with respect to the pole.

No solder is required for connecting transformers to line—solderless connectors are used for all bushing terminals and grounding lugs.

Transformer is self-protecting against lightning as it is equipped with a co-ordinating gap that is set to flashover at a value well below the surge strength of the transformer windings.

Transformer is shipped filled with oil ready for service. This is made possible by the use of stud-type bushings which eliminate all syphoning of oil.

Wagner type HEB-F rural line distribution transformers have not only all these features, but many more. For further information regarding these transformers, write the nearest Wagner branch office. Descriptive literature will be sent upon request.

## Wagner Electric Corporation

6400 Plymouth Avenue, Saint Louis, U. S. A.

Transformers

Motors

Fans

Brakes

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August 27, 1964

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FD-236 (Rev. 5-22-64)

Trakes

(ment)



# D I V I D E N D S

## Advertising Changes the Heating Plants in 6000 Homes

In a community where the advantages of gas heating are an old, old story . . . where the field has been combed and recombined . . . an advertising campaign helped induce almost 6,000 home-owners to change over to this higher-priced (*and worth it*) heating method.

This was no boom-time job. It was done at a time when average incomes were still far below normal and when the natural tendency was to turn to cheaper rather than more expensive fuels.

The advertising was handled by Ketchum, MacLeod and Grove.

An agency that knows enough about human nature to do this might be able to improve the effectiveness of *your* advertising. We would like to discuss it with you.

### SOME UTILITIES SERVED BY KETCHUM, MACLEOD & GROVE, INC.

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Gas Co. . . The East Ohio Gas Company . . The Natural  
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and The Peoples Natural Gas Company.

MAY WE SEND YOU COPIES OF OUR BULLETIN "DIVIDENDS"?



**Ketchum, MacLeod & Grove, Inc.**

***Koppers Building, Pittsburgh, Pa.***

**A D V E R T I S I N G**



## IN EVER-WIDENING CIRCLES

**L**IKE a stone dropped into quiet waters, every new use for electric service develops its ever-widening circle of influence. It projects its effect to every corner of the country, and it always results in a growing market for electric power—more load and more revenue for every power company.

For many years, General Electric has been developing new uses and improved applications for electric power. Here are a few examples: The high-speed Calrod range unit and the *hermetically sealed* refrigerator that have not only accelerated the demand for electricity in the home, but have by themselves in six years added more than a billion kilowatt-hours to power-company lines. G-E developments of high-power vacuum tubes made possible radio broadcasting with its resultant demand for millions of radio receivers.

Resistance welding and a hundred applications of electric heat in industry have, G-E equipment alone, added nearly a billion kilowatt-hours since 1929. And we ask you to make your own estimate of the value to you of the many G-E developments in lamps and of the new sodium and high-visibility luminaires for highway lighting that are the beginning of new and greater opportunities.

General Electric's ability to continue the development of new equipment—new uses that open up ever-widening markets for electricity—depends of course upon orders. We look to your industry—our largest volume customer—for this kind of encouragement. That you benefit directly through increased load and revenue is just one of many important reasons why your most profitable purchases are made from General Electric.

**GENERAL**  **ELECTRIC**